

# SD Times

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## Political storm brewing over proposed Java spec

### OSGi interoperability issue may burn Sun

BY ROBERT MULLINS

Nineteenth-century German chancellor Otto von Bismarck is famous for noting that laws are like sausages: It is better not to see them being made. The same could be said of the process for making at least one Java Specification Requirement.

The Java Community Process (JCP) for creating JSRs has come under fire again, with allegations that backroom politics is influencing the evolution of JSR 277 and that Sun Microsystems is imposing its standard to the detriment of others. But a Sun representative said the lively debate about the JSR is just part of the sausage-making.

In early June, Ian Skerrett, marketing director for the Eclipse Foundation, criticized Sun's influence over development of the proposed JSR 277 specification, covering the Java Module System. The root of the problem is the numbering protocol for tracking different versions of a module written in Java; Java Module System uses a four-digit scheme, OSGi only three.

Skerrett wrote in a June 5 blog posting ([tinyurl.com/5rbk5x](http://tinyurl.com/5rbk5x)) that doing things Sun's way could pose interoperability problems with the Eclipse-backed OSGi module system for building applications, and he called Sun's attempt to flex its muscle a "mockery" of the JCP.

JSR 277 is to be included in release 7 of the Java Development Kit (JDK).

Skerrett added that Sun is playing politics, urging it to "stop the bilateral discussions," and asked the company to replace JSR 277's spec leads.

"For all of Sun's executive-speak about being a hip, open company, they continue to behave like an old fashion [sic] hardware vendor," Skerrett wrote. Through an Eclipse spokesperson, Skerrett declined to comment further to SD Times. However, in a comment attached to an article about the controversy on The Register's Web site, Skerrett qualified his remarks as being his own, and not an official position of the Eclipse Foundation.

Sun's people working on JSR 277 believe that providing more complete information about the version of code being identified

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## Third-party developers get direct eBay access

BY ROBERT MULLINS

Third-party developers now will be able to sell their software applications directly to eBay buy-

ers and sellers. Project Echo, launched last month, provides such access using the auction site.

Although 70,000 developers

write and offer applications intended to help eBay sellers with marketing, inventory management or customer service, those developers have lacked direct access to promote their software.

"Developers [will] have direct access to that seller community, something they have never had before," said Kumar Kandaswamy, senior manager of developer platform strategy at eBay.

The eBay Selling Manager subscription service available at eBay.com, until now solely for eBay-developed applications, is opening up as part of the plan. Under Project Echo—announced at the recent eBay Developer Conference—third-party developers will be able to sell through

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Max Mancini, eBay's senior director of mobile, platform and disruptive innovation, introduces Project Echo at the eBay Developer Conference.

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## IBM SPELLS: IT-FREE BUSINESS MASHUPS

BY MICHELLE SAVAGE  
SPECIAL TO SD TIMES

Non-techies are getting their shot at joining the mashup craze. IBM has created a Mashup Center—to be hosted as a free trial on the Web—that will let business users build applications without burdening their IT departments, the company said.

On schedule for mid-year delivery, Mashup Center allows users to remix information from internal and external sources, including applications, databases, multimedia, spreadsheets, unstructured text, Web sites and

feeds, and other data, to gain business insight and increase productivity while complying with corporate and IT guidelines.

IBM will give customers the opportunity to experiment with Mashup Center for free through the company's Lotus Greenhouse, without requiring any installation on their equipment. Mashup Center includes an intuitive browser-based tool to assemble new mashups, allowing non-technical users to drag and drop mashup components from personal, enterprise and Web sources to create, deploy and share customized Web



The platypus: nature's mashup?

Photo courtesy of Healesville Sanctuary, Victoria, Australia

applications in minutes.

Mashup Center also provides tools to manage information feeds from enterprise sources. Data from many sources can be mixed,

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## Java software QA 'TiVo' now available

Tool records software in action to spot problems during playback

BY ROBERT MULLINS

It's a lot like reconstructing a car accident. When a program crashes, developers run it again in an attempt to re-create the circumstances that caused the accident. Wouldn't it be easier if a traffic camera was already running at the intersection? One software toolmaker thinks so.

Replay Solutions, which describes its software quality assurance tools as "TiVo for software," launched a new version of ReplayDirector on June 16. It is designed to test Java EE applications by recording software while it's running in order to pinpoint the problem during playback.

ReplayDirector for Java EE, which has been in beta release since March 17, starts at US\$50,000 for as many as 10 users, Replay said.

Recording the software while running in development or production captures all the inputs that would affect software performance, such as network inputs, user input from a mouse and keyboard, I/O timing, and other factors, said Jonathan Lindo, CEO and co-founder of Replay.

"We capture all of these in such a way that when you have

a recording and [when] you play that recording back, your application actually plays back the execution path when you made the recording," Lindo explained.

This is much more effective than trying to re-create a situation using a load simulator, which may not duplicate all the factors that caused the crash, he added.

At another company for which Lindo worked before starting Replay, he and his colleagues spent 80% of their time trying to reproduce the conditions that caused an error.

"We realized that this was . . . a pain point that really lacked any kind of technology," he said.

Replay has also developed software-recording tools for gaming software and for Windows and Linux-based applications, said Lindo.

In addition, VMware offers a recording and playback feature for software testing, but Lindo explained that VMware's tool runs at the operating system's level, while Replay's focuses on a specific application. VMware's tool also operates only in virtual environments, whereas Replay works in both physical and virtual environments. ■

## Microsoft and Yahoo: Forget it

### Yahoo nixes an alternative transaction

BY DAVID WORTHINGTON

Like some battles, this one ended in a whimper. Microsoft has abandoned its campaign to acquire all of Yahoo, and Yahoo refuses to hand over the reins of its search business. Yahoo has instead opted for a non-exclusive partnership with Google, one that apparently closes the door on any deal with Microsoft.

Yahoo issued a statement on June 12 declaring that its latest negotiations with Microsoft had ended in stalemate. The announcement also noted that in a June 8 Yahoo board meeting, Microsoft representatives stated unequivocally that Microsoft is not interested in pursuing an acquisition of all of Yahoo even at the price range it had previously suggested.

In May, Microsoft abandoned its takeover bid after the companies had failed to agree on a selling price, but they continued to pursue an alternative transaction in hopes of expanding Microsoft's online advertising and services business.

Yahoo's board maintains that

any acquisition that would leave the company without an independent search business would hurt the company's strategic vision and, consequently, the interests of its shareholders. The board views the convergence of the search and display markets as critical to Yahoo's future.

Yahoo CEO Jerry Yang said in a prepared statement, "We believe that the convergence of search and display is the next major development in the evolution of the rapidly changing online advertising industry. Our strategies are specifically designed to capitalize on this convergence—and this agreement helps us move them forward in a significant way. It also represents an important next step in our open strategy, building on the progress we have already made in advancing a more open marketplace."

A Microsoft spokesperson confirmed that the companies continued to discuss an alternative transaction in the weeks after Microsoft withdrew its bid, and reiterated that the

company was not interested in rebidding for all of Yahoo.

"Our alternative transaction remains available for discussion," the spokesperson wrote in an e-mail.

However, Yahoo's survival strategy seems to be headed in the direction of "the enemy of my enemy is my friend." The company also announced the same day that it had struck a non-exclusive agreement with Google to run ads supplied by Google alongside Yahoo's paid search results. The ads will also appear on some of its Web properties in North America.

The agreement applies to paid search and content match only, and not to algorithmic search, according to Yahoo.

Under the terms of the agreement, Yahoo reserves the right to select the search term queries for which, and the pages on which, it displays the ads. It also reserves the right to mix and match the ads from Google with paid results from its Panama advertising platform or other, unspecified providers. ■

## COMPONENTONE UPDATES CONTROL SUITE

BY DAVID WORTHINGTON

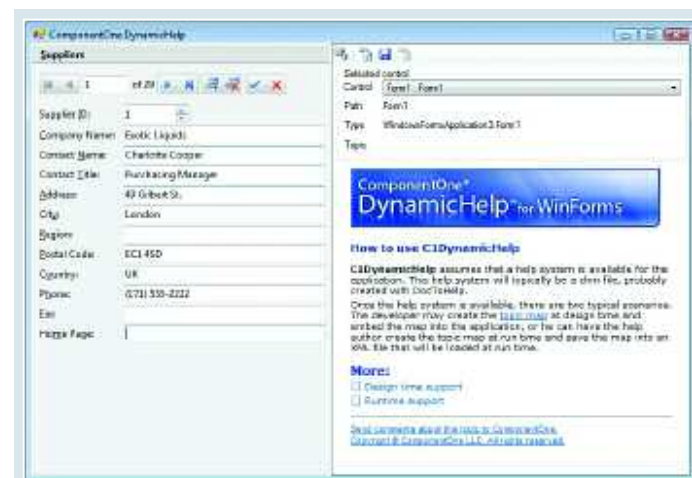
The summer is young, but one component maker is hunkering down with a major upgrade ahead of the fall buying season.

ComponentOne last month shipped Studio Enterprise 2008 v2, with updated—and some new—controls free to current subscribers.

The suite introduces two Windows Forms controls: DynamicHelp, a container that permits users to view context-sensitive help topics from within forms, and InputPanel, a set of 19 native data input controls that automatically create data entry forms from data sources.

A visual designer that maps help topics accompanies DynamicHelp, so that technical writers will no longer require access to source code, said Gustavo Eydelsteyn, ComponentOne's managing director.

InputPanel can provide data validation, and it creates the appropriate fields on forms and associates controls, said Eydelsteyn. In a demo, InputPanel automatically associated a calen-



DynamicHelp provides context-sensitive aid for Windows Forms apps.

dar control to a form, after it had recognized that its data source was a database for a personal information manager.

Changes were made across the suite of .NET controls. The IntelliSpell add-in now checks spelling as users enter text, and Preview, a Windows Forms control, can open PDF documents.

ComponentOne Reports, which generates Access-style reports for Visual Studio .NET applications, is easier to deploy

with updated DLLs and built-in templates, Eydelsteyn said. ReportDesigner has an Office 2007 "ribbon"-style interface, and ComponentOne's ribbon control works with any .NET control.

Sizer, a resolution-independent resizing control, has grown up a bit, as it now supports gradient backgrounds and curved borders. The TrueDBGrid tabular data grid control provides new views, including multi-line rows, as well as auto-sizing. ■

# Infragistics demos Silverlight 2 controls

BY DAVID WORTHINGTON

ORLANDO — As Microsoft's Silverlight 2 rich application platform comes closer to being fully baked, one component vendor sees it as an opportunity to augment its lineup of controls and connect the future of software with today's programs.

Here at the TechEd Developers conference, Infragistics announced a suite of controls for ASP.NET and Windows Forms, NetAdvantage for .NET 2008 Volume 2, while showing off its first components for Silverlight.

The company recently began demonstrating a CTP of charts and gauges based on Silverlight 2. The controls feature 2D animations and graphics, and they

are capable of storyboard transformations, said Tony Lombardo, lead evangelist at Infragistics.

The Silverlight controls accept presets from Infragistics' ASP.NET Windows Forms controls and have a similar model for object structure, he added. The types of charts and gauges available for Silverlight are similar to the company's existing Windows Forms offerings.

With Silverlight, gauges can show data streaming in real time, which Lombardo noted is tough to implement in a classic Web application. Also, data points on charts can trigger actions.

"Silverlight has opened up a new level of building rich applications; it's almost like watching

a PowerPoint presentation inside a Web app," said Lombardo.

The Silverlight controls are free to download and use, according to Infragistics.

NetAdvantage for .NET 2008 Volume 2 unveils two ASP.NET controls: Slider Control and Hierarchical Datasource. Slider Control has a slide bar that moves along a range of values and is an alternative method to set values to a text box.

Meanwhile, between the 2005 and the 2008 releases, Lombardo explained, Visual Studio lost the ability to bind to hierarchal data at design time; the Hierarchical Datasource control permits developers to construct hierarchal views from flat data sources, he claimed.

The suite also has a new data validation component for Windows Forms called Validator. As well, the TreeMap and DataGrid grid controls have new customization features that provide developers with more control over user experience in their application.

DataGrid is no longer "Excel-like," said Lombardo. For example, a developer can present a field as an address card.

Pricing for a single NetAdvantage product starts at US\$795. Priority support is available for an extra cost. ■



The mascot greets visitors to the Firefox 3 launch at Mozilla Foundation's headquarters in Mountain View, Calif. Firefox 3 recorded 8.3 million downloads and a peak of 17,000 a minute on its first day.

## 'BROWSER WARS ARE BACK'

### Firefox 3 released, IE 8 on the way

BY ROBERT MULLINS

Browser Wars I ended when Microsoft crushed Netscape in the late 1990s. Browser Wars II began June 17, in one analyst's view, when the Mozilla Foundation launched Firefox 3.

The open-source Firefox 3 boasts more features, better security, higher speeds and less memory consumption. But while Mozilla people celebrated with a cookout at their Mountain View, Calif., headquarters, a few hundred miles north in Redmond, Microsoft continued work on Internet Explorer 8. A second beta release is set for August, with a final release expected later this year.

"The browser wars are back," said Jeffrey Hammond, an analyst at Forrester Research.

"It's great that we have this kind of competition among all three of the major browsers," Hammond said, referring to Explorer, Firefox and WebKit, the open-source browser engine on which Apple's Safari and several other mobile browsers are built.

Internet Explorer remains the market leader, but its share has declined as Firefox's has risen. A Forrester Research survey of enterprise Web browsers shows that IE's share fell to 78.7% in December 2007, from 88.7% in January 2007; Firefox's grew to 18% from 9.8% during that period.

Mozilla Corp., the for-profit unit of the nonprofit Mozilla Foundation, said that Firefox 3 is nine times faster than IE 7, two to four times faster than Firefox 2 and needs one-fifth as much memory to operate than IE 7.

Firefox developers have been a stickler for improving memory management, said Damon Sico, director of platform engineering for Mozilla.

Sico added, "We had a very focused session on performance: over four and a half months just to focus on JavaScript performance, getting memory utilization down and reducing code size while still increasing performance."

### TAKE IT OFFLINE

However, one notable addition to Firefox increases memory consumption, at least temporarily. The offline support feature makes it possible to use a browser-based application even when the computer isn't connected to the Internet. Work done is stored in memory until the next online session, then data is synched with the Web server.

"Let's say I'm on a plane and I want to interact with Google Mail," Sico said. "[The user] can say, 'I want to take this particular application offline,' and you can read and compose e-mails and interact with the application as if connected." ■



Infragistics has a common code base for its Silverlight and WPF controls.

## Business intel meets enterprise search

BY DAVID WORTHINGTON

Search engines have changed the way information is obtained. A developer of data integration products has created an appliance that uses the "search" construct to serve up business intelligence to non-technical users.

On June 2, Composite Software made its Discovery appliance generally available. Discovery is sold with the option of buying its hardware, software and service offerings outright, or buying a monthly subscription.

Discovery indexes structured data that is provisioned from data sources and pulls out metadata. Customers use a provisioning tool that is similar to Composite's Information Server middleware, said Composite Software chief technology offi-

cer David Besemer.

Customers type keywords into Discover's search screen, and the keywords are used to find hits with data. The most relevant search results satisfy the most keywords entered, Besemer explained, and advanced hits have relationships mapped among structured data.

After a result is selected, the interface resembles a traditional business intelligence reporting system, with information presented as tabular data arranged in rows and columns that can be toggled, refined with filters, or even removed outright. A schema depicts relationships between data entities.

The refined results can then be saved as a repeatable report

that Composite Software refers to as a "recipe," and it can be exported to Microsoft Excel for further manipulation or for sharing.

Discover uses a specialized algorithm to automatically model relationships, Besemer added, with a correlation score, compiled using a proprietary method, determining the accuracy of relationships.

"Enterprise search does not understand structured data. That is our expertise: to relate structured data to other structured data. End users self-serve," said Besemer.

The Discover appliance has a range of security options and can integrate with Active Directory and LDAP authentication systems. ■

## FIREFOX: AWESOME EDITION

All the new features prompted Mozilla developer Debra Richardson to write "A Field Guide to Firefox 3." Here are the highlights:

- **Awesome bar.** Search browser history by entering in the URL window keywords on Web pages recently visited. Bookmark by clicking on a star next to the URL window and add keyword tags to find that site again later. There's no need to make bookmark folders or to go to a search engine.
- **Add-ons manager.** Search 500+ plug-ins, RSS feeds, themes and other add-ons.
- **Color profile support.** Offers rich and more vibrant colors than what Firefox 2 can render.
- **Font and text rendering.** Adopts the Cairo subsystem for new graphics layer and more tools for rendering text.
- **Gecko 1.9.** Firefox 3 is built on the Gecko rendering engine for displaying Web content in a browser.
- **Offline Web application support.** Allows you to run an application even when offline, saving data to memory and synching with Web server when reconnected.

Source: Mozilla Corp.





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# Developers keep FoxPro buzz alive

The database management system inspires a loyal community following

BY DAVID WORTHINGTON

Visual FoxPro is no longer at the edge of Microsoft's saber, but the database management system still commands a loyal following and invokes fond memories of its heyday from the community that surrounded it.

In May, SD Times interviewed several members of the FoxPro community, with an eye toward documenting its contributions to modern technology.

"My favorite thing about FoxPro is not technological; it is the community that FoxPro inspired. Many developers live in houses that Fox [Software] built," quipped Jim Duffy, a Microsoft regional director and president of TakeNote Technologies, in reference to the original publishers of FoxPro, a company that Microsoft bought in 1992. (Regional directors are volunteers recognized by Microsoft for their technical abilities.)

He added, "I have a number of very good friends whom I met in the [FoxPro] community."



*CodePlex 'has added around 15 new capabilities to VFP in just the last year and a half. . . . It's a pretty amazing thing.'*

—Alan Griver, Microsoft's group program manager for online commerce platforms

Likewise, the strength of the FoxPro community is what stands out most to Alan Griver, group program manager for online commerce platforms at Microsoft, who cut his teeth on FoxPro for DOS 1.21 back in the 1980s.

Griver explained that many of the Microsoft developers that had responsibilities for FoxPro came from the community around the database software. He credits the work behind the Microsoft-published FoxPro releases for establishing close ties that led to "a lot of back and forth" communication between developers and Microsoft, which he maintains

continues to this day. Microsoft would rename the software in 1994 as Visual FoxPro and label it internally as VFP.

Joe Homnick, another Microsoft regional director and principal owner of Homnick Systems, said that he had "lots of fond memories" of the FoxPro community.

Microsoft effectively turned the FoxPro keys over to the community in March 2007, when VFP became a CodePlex project. The final official Service Pack for VFP shipped Oct. 11, 2007.

Indeed, the FoxPro community remains engaged, as evidenced by activity on CodePlex,

Microsoft's primary Web site for Shared Source projects.

"It has added around 15 new capabilities to VFP in just the last year and a half," said Griver. "They localized VFP into multiple languages, and have done more work to integrate it into [Visual Studio] Team Foundation Server. It's a pretty amazing thing."

"There were always rumors that [Microsoft] would kill it off; the community said, 'Just give it to us,' and it looks like [the community process works]. It's kind of cool," said Homnick.

The interviewees agreed that over two decades' worth of releases between 1984—when Fox Software released FoxBASE, a dBase workalike for DOS—and the release of Visual FoxPro 9.0 in late 2004, VFP 3.0 and VFP 5.0 were the most significant. The third major release added object orientation, said Microsoft's Griver, and "VFP 5.0 took the promise of VFP 3.0 and really

cemented it." Griver also noted that many users had continued to use FoxPro 2.6 without upgrading until VFP 5.0 became available.

Griver believes that VFP 8.0 and 9.0 were also important, because in those releases, Microsoft redesigned its report writer and began opening up the platform to the community.

Likewise, "VFP 3.0 was hugely significant," said Duffy. He observed that while that release was "not the most stable version in the world," it had a "huge impact" with its object-oriented focus.

Duffy explained that version 5.0 was important for retaining the user base and attracting new adopters, as it fixed and "cleaned up" version 3.0's issues. "VFP became more viable as a platform," as a result, said Duffy, adding that each version of VFP marked a milestone.

Another aspect of FoxPro's legacy is that, in a continued

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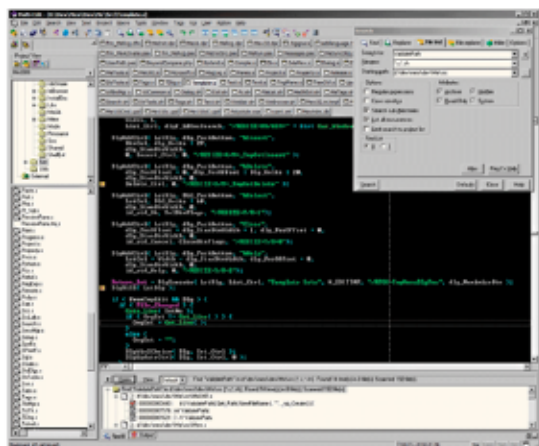
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# ScaleOut StateServer upgrade boosts ASP.NET applications

## Version 4.0 replaces UDP with TCP packets

BY DAVID WORTHINGTON

ORLANDO — Microsoft's foray into the distributed caching software market with its community preview of Velocity leaves its ISV partners with no option but to differentiate. With an eye on the elephant entering the room, a distributed caching software developer has updated its tooling for .NET with capabilities that Microsoft does not yet provide.

At the TechEd Developers conference here last month, ScaleOut Software released StateServer 4.0, an upgrade that introduces a communications architecture that it calls more efficient, plus has 32-bit/64-bit cross-compatibility, parallel querying and the ability to organize and manage groups of cached objects as collections.

StateServer performs in-memory caching for .NET server farms and compute grids to boost ASP.NET application performance and offload work from database servers. Meanwhile, Microsoft is testing the waters with Velocity, which it intends to integrate with the .NET Framework.

Version 4.0 of StateServer replaces UDP with TCP packets to migrate most transport overhead onto drivers or NIC cards, said ScaleOut founder and CEO William L. Bain, who added that this results in much faster performance under normal conditions. StateServer falls back on a proprietary transfer protocol when

TCP connections drop, he explained.

The StateServer update provides for 32-bit/64-bit replication between clients and servers—even across different server farms, said Bain. Customers must purchase ScaleOut GeoServer to work with geographically distributed data.

Likewise, Bain added, customers may mix Linux and Windows editions of StateServer within the same caching farms, because the protocols are the same.

StateServer runs queries in parallel across all caching servers, to scale server performance. The release also introduces "named cache" APIs that let developers organize and manage groups of cached objects as collections. Developers attach metadata "tags" to cached objects and query the cache for all matching objects.

The server offers what the company calls extended dependency relationship support, so that customers may expire sets of objects simultaneously. For example, an automotive application could be programmed to associate sub-models with varying colors and options to a particular vehicle, and then expire that from the cache as well.

In the event of a failover, noted Bain, StateServer can now be configured for client access timeout if recovery takes too long to access a cached object. In practice, when an object times out, data is retrieved from backup data stores, such as a database server specified by the customer. ■

## NEWS BRIEFS

### COMPANIES

Open-source online repository **Sourceforge.net** has accepted **MPower**, which provides software for nonprofit constituent relationship management (CRM). MPower's software helps nonprofits with fundraising and CRM. MPower said that nonprofits and their partners have easy access through Sourceforge to the software's source code so they can develop additional features and create and share new functions for fundraising and related tasks . . . Rich Internet application company **Cynergy** has relocated its Washington, D.C., headquarters to a new facility that is triple the size, near Farragut Square. Company executives said that relocation to a larger building was necessitated by Cynergy's growth in the RIA marketplace.

### NEW PRODUCTS

Microsoft has released for download version 1 of the **Open XML SDK**, which is

designed to help developers create client and server products that follow the Office 2007/Ecma Office Open XML formats. The first version of the SDK includes a set of APIs for Open XML Formats, Microsoft said . . . The business process outsourcing (BPO) market is expected to reach US\$450 billion by 2012, analyst firm NelsonHall said in a new report titled, "**Global BPO Market Forecast: 2008-2012.**" In its 243-page report, NelsonHall said that the current economic slowdown in the United States would lead to organizations using off-shore outsourcing to reduce costs, as well as to advance opportunities globally . . . AccuRev and Rally Software have integrated AccuRev's software change and configuration management product with Rally's agile life-cycle management product to deliver a platform that can manage multiple agile processes and improve requirements' traceability, the companies said. The integration is called **AccuBridge for Rally**, and it is available in beta . . . Zeligsoft, a software

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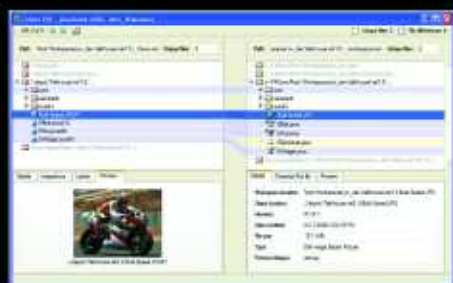


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## Introducing Folder Diff, a productivity feature of Perforce SCM.



Perforce Folder Diff

Folder Diff is an interactive, side-by-side display for comparing the state of any two groups of files.

Use Folder Diff to quickly determine the differences between files in folders, branches, labels, or your local disk. This is especially useful when performing complex code merges.

And when you've been working offline, Folder Diff makes it a snap to reconcile and catch up with the Perforce Server when you get back online.

Folder Diff is just one of the many productivity tools that come with the Perforce SCM System.



# Velocity to bring caching to the masses

BY DAVID WORTHINGTON

ORLANDO — Microsoft's distributed in-memory application cache platform, code-named Velocity, is positioned to bring caching to the masses by integrating with the .NET Framework. However, it is too raw to be compared with fully matured products, including those developed by the company's partners, Microsoft said.

Microsoft announced the availability of a Community Technology Preview (CTP) of Velocity at the TechEd Developer Conference last month. When ready for prime time, Velocity will have a feature set that includes a defined local cache, a partitioned cache and a replicated cache, plus load balancing and failover facilities.

A partitioned cache is designed for activity data and replicated caching caches reference data, while a local cache stores frequently accessed objects and can front-end partitioned cache data.

In practice, developers will invoke cache APIs to add and retrieve data as well as to tag data and enable searching. Collection-oriented APIs will provide access to groups of related items and enumerate them, according to a Velocity datasheet obtained by SD Times.

But the present CTP is not feature-complete, and more advanced features such as failover will not arrive until CTP 2 ships at the company's Professional Developers Conference in October, said Nithya Sampathkumar, program manager of the Velocity team at Microsoft. Velocity will also be integrated with the .NET Framework 3.5, she added.

Velocity is compatible only with that version of the .NET Framework, and it will be Microsoft's baseline approach to its future work with event- and session-based data in ASP.NET, IIS and the .NET Framework, said Jonathan Perera, general manager of Microsoft's Application Platform division, in a separate interview.

Sampathkumar hedged when describing Velocity's feature set, saying that it would be difficult to compare Velocity with fully matured memory caching solutions at this point. She did acknowledge certain limitations: Its capacity for load balancing is restricted to a local

machine cluster, and users must specify, in a configuration file, a secondary location to redirect data to in the event of a failover.

In comparison, Oracle added in-memory data grid software to its portfolio when it

acquired Tangosol in March 2007. That same month, Tangosol introduced a library for .NET that allows .NET applications to access the company's Coherence clustered services, which manage in-memory data

across grid nodes.

Meanwhile, ScaleOut Software, which Sampathkumar called a "key partner" of Microsoft, produces distributed caching solutions for .NET that service enterprise ASP.NET

applications running in server farm or grid computing environments.

"We are gratified that Microsoft validated the market for distributed caching—some-

continued on page 12 ►

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# Microsoft's Oslo to implement modeling alternatives

BY DAVID WORTHINGTON

ORLANDO — If you can't beat 'em, absorb 'em. That seems to be Microsoft's theory as it prepares its big entrance into the modeling arena by talking up

extensibility here at the recent TechEd Developers conference.

Microsoft's emerging Oslo will be a low-level language, designed to work with domain-specific modeling languages, as

well as BPEL and Unified Modeling Language (UML).

But what's to distinguish Oslo from other modeling languages? Extensibility, according to Steven Martin, director of

product management in Microsoft's connected systems division. Oslo will be horizontal, he said, with an XML base that developers can use as a foundation technology.

Microsoft will provide a road map for its support of other modeling languages later this year, he said, confirming messages from the company's highest levels. During the conference's keynote address, Microsoft chairman Bill Gates revealed that the Oslo-wave release of Visual Studio Team System would implement UML. "The modeling model is disparate—even at Microsoft," Gates remarked.

According to Martin, Oslo technology will feature a repository that is meant to capture all necessary information related to an application, such as its business logic, deployment, and identity and governance policies.

Another Oslo component, Architecture Explorer, is a graphical environment for model design. Developers, though, may still hand-code their model and have it graphically represented within the designer, said Martin.

Microsoft is exploring ways to use its modeling technologies in BPM Alliance customers' products, said Martin. At this fall's Professional Developers Conference (PDC) in Los Angeles, the company will reveal more on how it will make those technologies more broadly available, whether it will standardize its modeling language, and which other modeling languages it will support, he noted. ■



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## VELOCITY: CACHING TO THE MASSES

◀ continued from page 11

thing that we pioneered and evangelized to teams within Microsoft," said ScaleOut CEO William Bain.

Clearly unhappy that Microsoft was entering what Bain considers his turf, he added that news of Velocity "has created a certain amount of confusion among our customer base. However, we will continue to innovate to meet the needs of our customers and provide leadership in distributed caching architecture and data parallel computing."

He also questioned Microsoft's architecture, stating that its use of configuration files to locate other caching servers adds complexity to deployments and is a single point of failure. ■



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# IBM's collaborative Jazz plays in commercial arena

BY ROBERT MULLINS

Hoping to bring together disparate teams to make beautiful software music, IBM's Rational division was expected to release the first commercial products

from its Jazz collaborative development project late last month.

IBM revealed details of the Team Concert series of products before an estimated audience of 3,500 at the recent IBM

Rational Software Developer Conference in Orlando. Nine product announcements from IBM were complemented by 11 from third-party vendors.

The software giant began

research on the Jazz collaboration project in 2004 to overcome the difficulties faced when development teams are made up of people from different business units, time zones,

job duties or even companies. In January 2008, IBM released an open-source version of Jazz to the developer community, soliciting feedback through a site called Jazz.net.

"The focus of Jazz is to find a real-time collaborative environment in which you have the context and the team awareness and the process awareness of how we are going to work together," said David Locke, director of go-to-market products for IBM Rational.

Team Concert is a development server that automates several parts of the process and displays a dashboard that team members can view to stay current on its status, said Locke. It features blogs, instant messaging and other social networking tools. For example, the automated workflow of Team Concert allows the architect of the software project to notify specific developers when they need to work on their part of the project.

As the architect, Locke said, "When I push the 'I'm done' button, they automatically get work items assigned to them."

Rational's application life-cycle management system was born of data from Forrester Research showing that only 37% of stakeholders are satisfied with the speed of internal application development, and 42% are satisfied with the quality, IBM said.

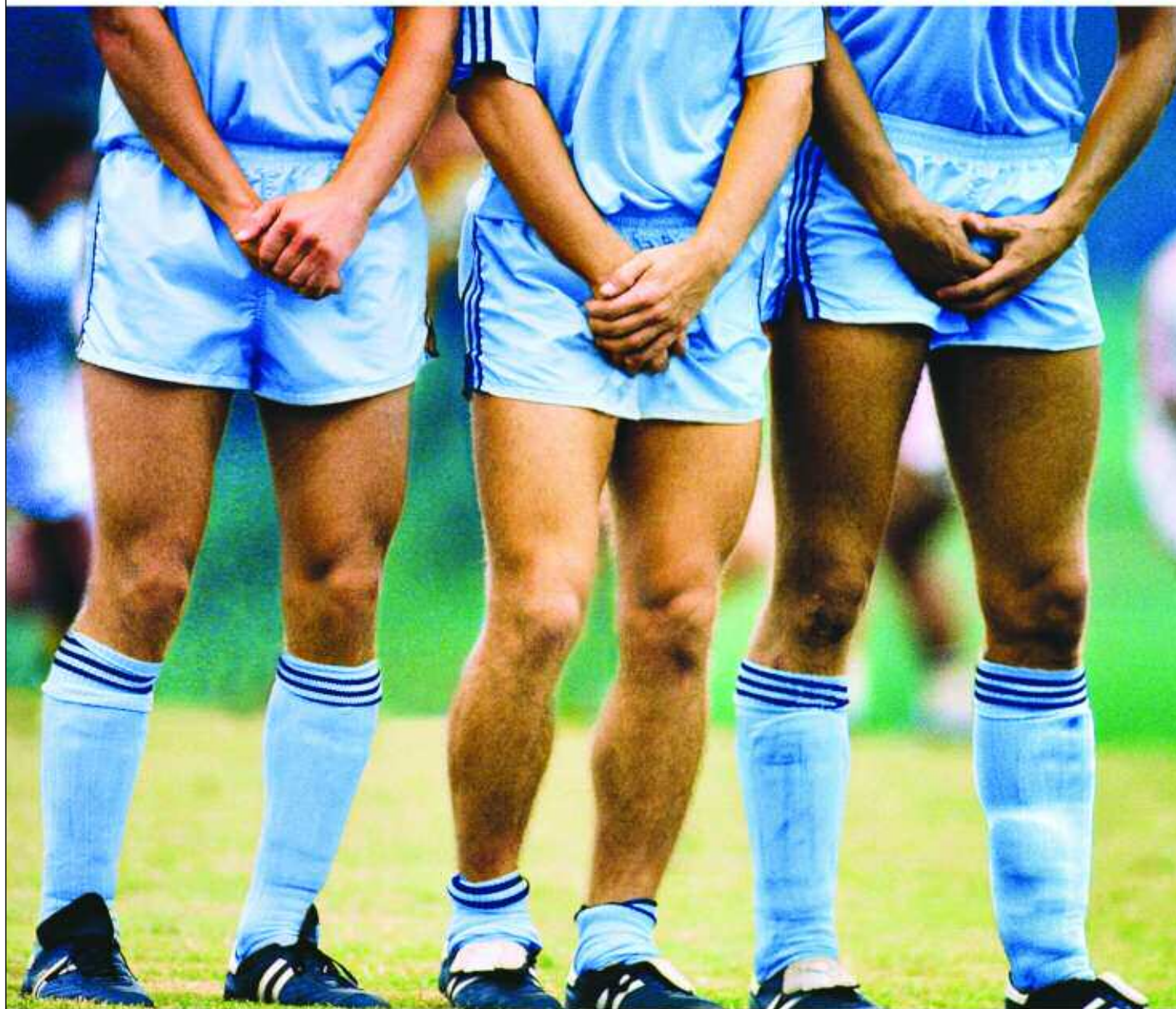
Team Concert has a sliding price scale depending on the size of the teams:

- IBM Rational Team Concert Express C is free for teams of up to 10 users.
- Team Concert Express, for up to 50 users, starts at US\$1,200 per developer.
- Team Concert Standard, for up to 250 users, starts at \$3,900 per developer.
- Team Concert Enterprise, for more than 250 users, won't be released or priced until 2009.

IBM has also released beta versions of two additional tools: Rational Requirements Composer, which helps gather software requirements, and Rational Quality Manager, which plans and manages software testing.

Third-party companies releasing tools that support the Jazz platform are Black Duck Software, CAST Software, CM Logic, iRise, Mainsoft, QSM, Ravenflow, Source IQ, Surgient, VMLogix and WebLayers. ■

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# IBM partners tune up for Jazz Team Concert

## Third-party announcements coincide with Rational conference

BY ROBERT MULLINS

As IBM launches its Team Concert platform for agile software development, technology part-

ners are certifying their products to work with Big Blue's.

Team Concert, a development server that includes the

Jazz collaboration technology, was introduced at the IBM Rational Software Development Conference in Orlando in

early June, and the third-party announcements coincided with that event.

Jazz defines IBM's technolo-

gy for software development collaboration among different business units, companies or locations. Team Concert acts as the portal for the software-building process and uses blogs, instant messaging and other tools to keep team members current on a project's status. IBM launched nine products, including different versions of Team Concert and other development tools. IBM partners offered 11 more products in various stages of certification to complement Team Concert and other Rational Jazz-enabled software.

All partners are expected to complete certification before the end of the year, said Stephen Lauzon, senior manager of the Ready for IBM Rational partner program.

In some cases, IBM has delegated functionality to partner products, but in most others, the partner products enhance or extend the functionality of an IBM offering, Lauzon said.

For instance, IBM turned to Mainssoft to support existing collaboration platforms. Mainssoft, a provider of Microsoft-Java interoperability tools, said it would integrate future releases of Team Concert into its Web 2.0-based collaboration offerings for IBM Lotus Quickr and Microsoft SharePoint. Lauzon specifically mentioned the document management capabilities in those products as important to offer within Team Concert.

However, IBM picked two companies to support virtual test lab management in its IBM Quality Manager product, which was also released at the Orlando conference. Surgient and VMLogix products specifically manage testing software in virtualization environments.

"There is nothing out of the box [in Quality Manager] to support virtual environments, but we are working with partners like Surgient and VMLogix to hook up their existing virtual test lab management," said Lauzon.

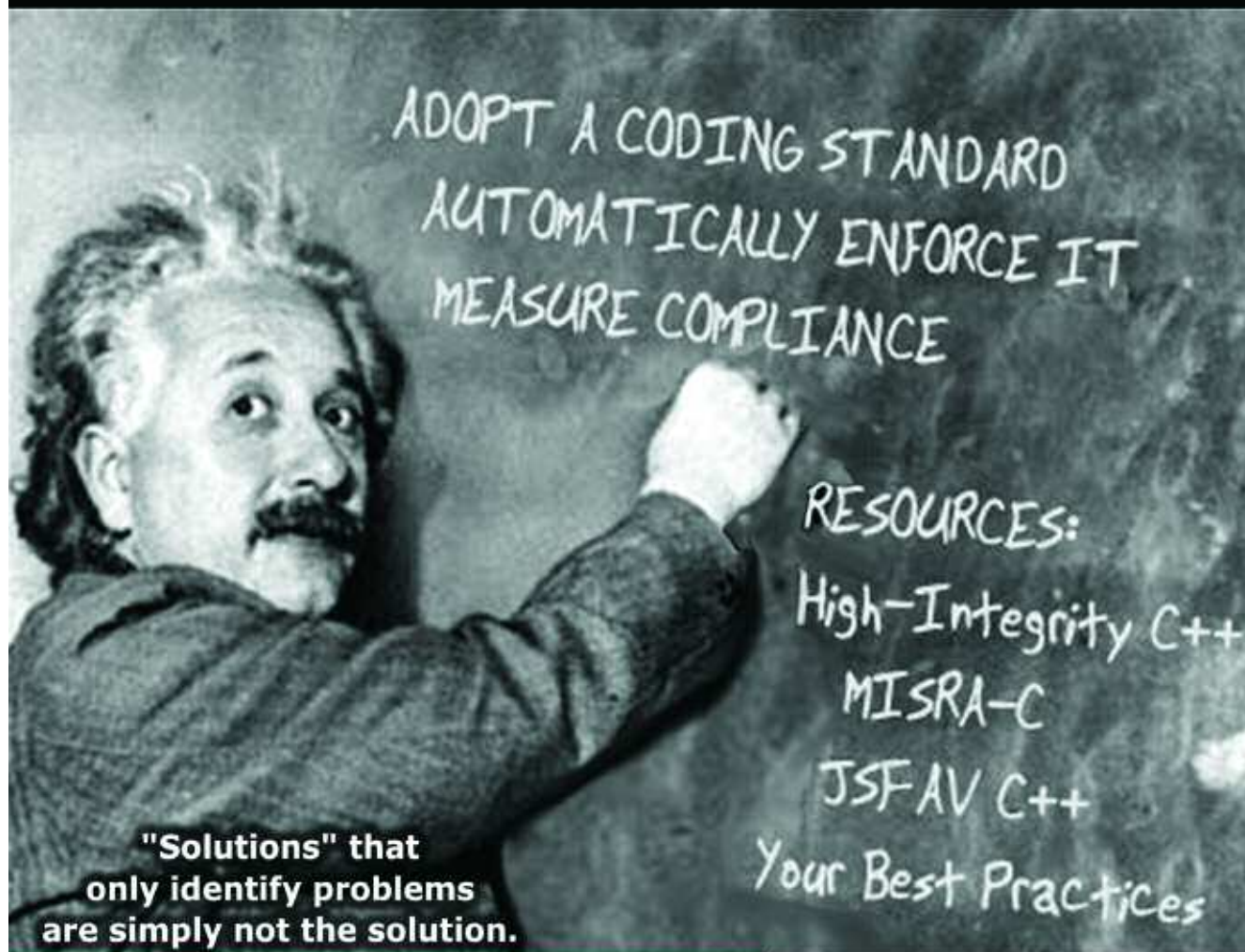
### QSM FILLS A HOLE

Another example of IBM's choice to co-opt rather than conquer is QSM, which will integrate its estimation and project control tools into the Team Concert platform. Estimation soft-

continued on page 18 >

Intellectuals solve problems.  
Geniuses prevent them.

— Albert Einstein



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## NEWS BRIEFS

## MORE NEW PRODUCTS

◀ continued from page 8

development product provider for the embedded computing industry, introduced a suite of products and services aimed at accelerating the development of software-defined radios, which are communication systems equipped with software components that allow quick reconfiguration of a radio's characteristics. Zeligsoft's **SCA Core Framework** permits users to validate new deployments and monitor running applications from within the Zeligsoft tool set, according to the company.

## UPDATES

Application virtualization security provider Trustware has added a "privacy zone" feature that creates a list of trusted Web sites for confidential transactions to **BufferZone Pro 3.0**. The company said that trusted sites would always open within the privacy zone to prevent the theft of banking information and passwords. BufferZone Pro creates a barrier between Web browsing and the computer's underlying operating system for security... First Coverage, a provider of financial information management prod-

ucts, has put expanded international coverage and new portfolio reporting tools into its **First Coverage Web-based platform version 2.0**. The platform's reporting tools now offer daily calculations of net asset value. Also new in First Coverage's Web-based platform are internal idea-tracking and the ability to export raw data.

## PEOPLE

**Dennis Keeling** has stepped down as lifetime president of the Business Application Software Developers Association (BASDA). According to reports, Keeling said that he felt he was getting in the way of **Jairo Rojas**, who had succeeded Keeling as director general in December. Keeling founded BASDA, an organization that works with governments in Europe to advance the business software applications industry... Ukrainian software testing and development company QArea Group has appointed **Nikolay Semenov** as its new QA director. He previously worked as CTO of BugHuntress QA Lab, an independent software testing division of QArea Group. Semenov holds a master's degree in computer science from the Kharkiv National University of Radio Electronics, in Ukraine. ■

# 3G iPhone, next-gen OS X capture Apple conference

BY P.J. CONNOLLY

SAN FRANCISCO — Apple was riding tall in the saddle when its Worldwide Developer Conference rolled into town June 9, with a first-ever sellout of the event. By day's end, it was hard to tell what was causing more tongues to wag: the long-awaited debut of the 3G iPhone or news of another update to Mac OS X—one far enough along to be called a developer preview.

As expected, Steve Jobs, with help from senior vice presidents Phil Schiller and Scott Forstall, used the keynote to confirm that the next iteration of the iPhone would become available July 11. To support it, Apple that day will unveil its App Store for iPhone-native applications, as well as a software update for the original iPhone and iPod touch that will allow access to the App Store as well.

The next-generation iPhone will not only be able to access a faster network, but it will also include GPS and a much lower price than the first model: US\$199 for a 3G iPhone with 8GB of memory and \$299 for one with 16GB.

And as it turns out, the App Store will be one of a number of ways developers can make their applications available. For ad hoc, educational, casual and other types of developers, Apple's plan is to allow direct loading to as many as 100 devices through iTunes, presumably after

ponying up \$99 to join Apple's iPhone developer group. Likewise, businesses will be able to authorize iPhones to install corporate iPhone applications over a company intranet; corporate memberships in the developer group is \$299.

But one subject—Mac OS X Snow Leopard, the 10.6 release—got swept under the rug of Moscone West during the keynote, though as the week unfolded, a few details would emerge. Perhaps most critical for developers, one would assume that Snow Leopard won't support the venerable PowerPC platform, with the older G4 processors having been left on the roadside with the Leopard release at the end of last year. The developer preview of Mac OS X 10.6 is said to work only on Intel-based Macs.

Although Apple refused to comment further beyond the sketchy details posted on its press information site, some things are already clear: The server version of Snow Leopard will indeed offer the ZFS file system, and this might prove the most Microsoft-friendly version of Mac OS X, with Web service-based connectivity to Exchange servers built into the release.

Snow Leopard, due in about a year, is being touted for stability and a smaller OS footprint, but the feature set won't be neglected. Multicore support is being expanded in Mac OS X 10.6 through the Grand Central set of technologies. ■

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## Jazz strikes third-party chord

◀ continued from page 16

ware determines how long a project will take, what the personnel time and expense will be, and how costs and schedules vary, based on changes in requirements. The control function tracks costs and schedules throughout the project.

QSM, Lauzon noted, is an industry leader in project estimation and control, so there is no reason for IBM to develop a similar product.

Meanwhile, Black Duck Software, which studies code within an enterprise to ensure it complies with commercial and open-source licenses, is integrating its governing IP compliance feature into Team Concert.

CAST Software said it is integrating its application intelligence software, which measures the performance of business applications, into the Rational ClearCase 7.1 software configuration management tool.

IRise will include its application simulation tool in Team Concert, letting developers emulate how an application will run while it is under development.

Other partners highlighted at the development conference include CM-



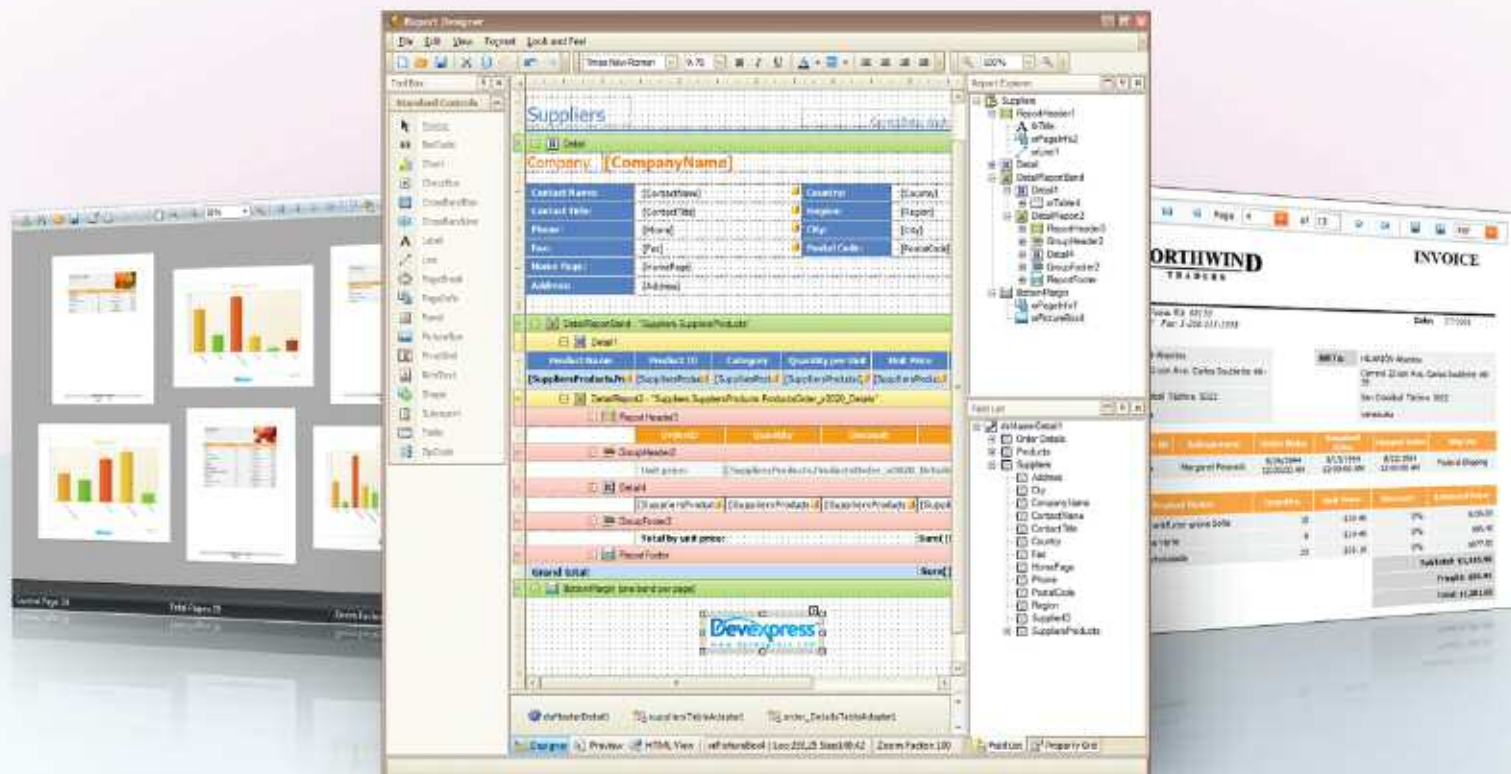
Lauzon: Partner certifications by year-end.

Logic, which is developing a connector to Team Concert for its change-management feature; Ravenflow, which is integrating its requirements module into Rational Requirements Composer; Source IQ, which is integrating its ALM governance solution into Team Concert; and WebLayers, which is offering an automated design time governance tool. ■



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# IBM likely to support both Synergy and ClearCase

BY ROBERT MULLINS

In the wake of IBM's acquisition of Telelogic, customers are wondering which source code management tool IBM will support: its own ClearCase or Telelogic's Synergy? But an IBM

executive said that there are reasons to support both.

When IBM closed on the Telelogic deal in early April, 90 days were allotted to create a product road map that would incorporate Telelogic into the

IBM Rational software division, an event that would take place in early July. Although he was reluctant to provide much detail, Ashok Reddy, director of offerings management for IBM Rational, told SD Times recent-

ly that the ClearCase and Synergy SCM (source code management) tools serve different markets and that IBM could be expected to support both in the future.

IBM bought Telelogic to

gain access to Telelogic's complex embedded systems customer base of avionics, defense, government, automotive and other large enterprises, IBM said at the time the acquisition closed. Those customers have unique certification requirements and other industry standards that are best served by Synergy as their SCM tool, Reddy said.

"For those customers, it doesn't make sense for them to use ClearCase because we, so far, don't support all these government, aerospace and avionics standards," he explained. "So there's no point in trying to integrate all our tools, because those Telelogic products are really targeting the systems market."

At the same time, ClearCase is IBM's flagship SCM product, Reddy said, particularly for globally distributed development teams. A new release of ClearCase is due out later this year.

Also unofficial, but likely, said Reddy, is support for Synergy in Rational's Jazz Team Concert, an almost-complete agile development collaboration platform. IBM is expected to release the first commercial version of Team Concert on June 30. Reddy said that Team Concert would include a "connector" to ClearCase, as well as one to the open-source alternative called Subversion.

Such guidance is important to IBM and Telelogic's customer bases, as well as to those also considering the Team Concert platform, said Mel Badgett, vice president of product marketing at Krugle, a search engine for software code.

"A lot of people in this market are being faced with questions about, 'How do I carry all of these technologies into the future?'" said Badgett, who added that both sets of customers appeared uncertain about the long-term prospects for the SCM tools.

"We initially didn't expect this to be a significant issue," said Badgett. "But in talking with some of the customers we have and the prospects we're working with, now we realize that having a bridge technology between some of these source code management systems is a very important thing." ■

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# Transaction-monitoring system fills a hole in SOA suite

BY DAVID WORTHINGTON

In a service-oriented architecture, transactions flow through intricate heterogeneous systems. Identifying those transactions as SOA's weakest link, one software maker has developed functionality to troubleshoot errors and fallout.

AmberPoint has released a free update that adds transaction management to its SOA Management System governance tools. The transaction-monitoring system handles interactions with packaged applications.

The system works by instrumenting the internals of Java and .NET applications, using dynamic linking in an aspect-oriented programming approach. It does not modify messages, said Ed Horst, vice president of product strategy at AmberPoint. It also instruments downstream components, such as appliances and Java application servers.

"We see the content and structure of messages leaving and entering processes. We see that they match, and [we] piece them together without inserting something special into the message. It's a real-time traffic analyzer," Horst explained.

"SOA has proven to be a great catalyst for aligning IT with business, yet the deep business value of networked systems is actually associated with the transactions that flow across

these composite applications," said Anne Thomas Manes, vice president and research director for Burton Group, in a prepared statement. "Yet, in many cases, organizations lack any visibility

into or capability for tracking and remediating problems with business transactions because these transactions usually span very diverse services. Organizations focused on only services may be

missing the forest for the trees."

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## SAAS PLAYER NETSUITE ACQUIRES OPENAIR FOR \$26M

BY ROBERT MULLINS

Boosting its position in on-demand business management software delivered as a service, NetSuite is acquiring OpenAir for US\$26 million, NetSuite said.

NetSuite will pay cash for OpenAir, a provider of on-demand professional services automation software. When the acquisition closes, expected before the end of the month, all 56 OpenAir employees will become NetSuite employees. The company will maintain offices in San Mateo, Calif., where NetSuite is based, and Boston, where OpenAir is based.

NetSuite will assume about \$5 million of restricted stock units held by OpenAir employees, which will continue to vest through the middle of 2010.

NetSuite, which was founded in 2002, went public in December 2007. ■

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# Informatica adds cloud capability to data management

BY ROBERT MULLINS

Informatica, which helps businesses manage, secure and extract value from their data, has responded to the cloud computing trend by extending

its capabilities to data that customers store in external, on-demand computing services.

Informatica 8.6, introduced at a recent user conference in Las Vegas, adds Data Loader,

which lets a company integrate its off-premises data managed by Salesforce.com with its on-premises data, said Chris Boorman, chief marketing officer for Informatica.

"When you look at on-demand computing, or any computing where you have moved the data off your premises—beyond the firewalls—you have to be able to

control it, you have to be able to integrate it," Boorman said.

Currently, integrating on-premises and off-premises data requires additional coding, but Data Loader provides a Web-based point-and-click capability that requires no coding to move data between an on-premises database and the Salesforce cloud, Boorman said.

Although Informatica began as a data management specialist for on-premises data, the company is adapting to the cloud computing trend, said Boorman.

"Cloud computing is an enormous opportunity for us because we [already] see organizations adopting this. At the end of the day, it's just about more data distributed somewhere else," he continued. "Organizations [need to] gain control of their data."

For now, Data Loader integrates only with Salesforce, though Informatica may later support other cloud computing services, said Ash Kulkarni, senior director of product marketing for Informatica.

In addition, Informatica 8.6 upgrades Power Center Real Time Edition, a platform for updating data faster as it changes, such as in the processing of financial transactions. Some Power Center features that were optional in previous versions have become standard in the 8.6 release.

Informatica also adds B2B Data Exchange, which integrates and manages unstructured data, such as spreadsheets and text documents, as well as semi-structured data in industry-standard formats, such as those governed by SWIFT and NACHA for financial services, ACORD for insurance, and HIPAA and Health Level 7 for health care.

Also included in Informatica 8.6 is the Data Quality checking tool that had been a stand-alone product. Data Quality determines the integrity of data to ensure that it is accurate and up-to-date, as well as conforms to business rules or industry standards.

Finally, 8.6 incorporates technology from the May 15 Identity Solutions acquisition, which resolves data identity issues across huge data volumes. ■

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Cheney, Ellen	180,586
Peterson, David	162,402
Johnson, David	150,000
Johnson, David	147,324
Johnson, David	147,324
Johnson, David	147,324
Johnson, David	147,324
Johnson, David	147,324
Johnson, David	147,324

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State	Revenue
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567
California	1,234,567

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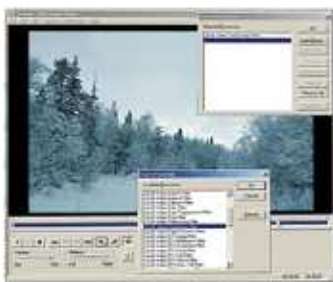
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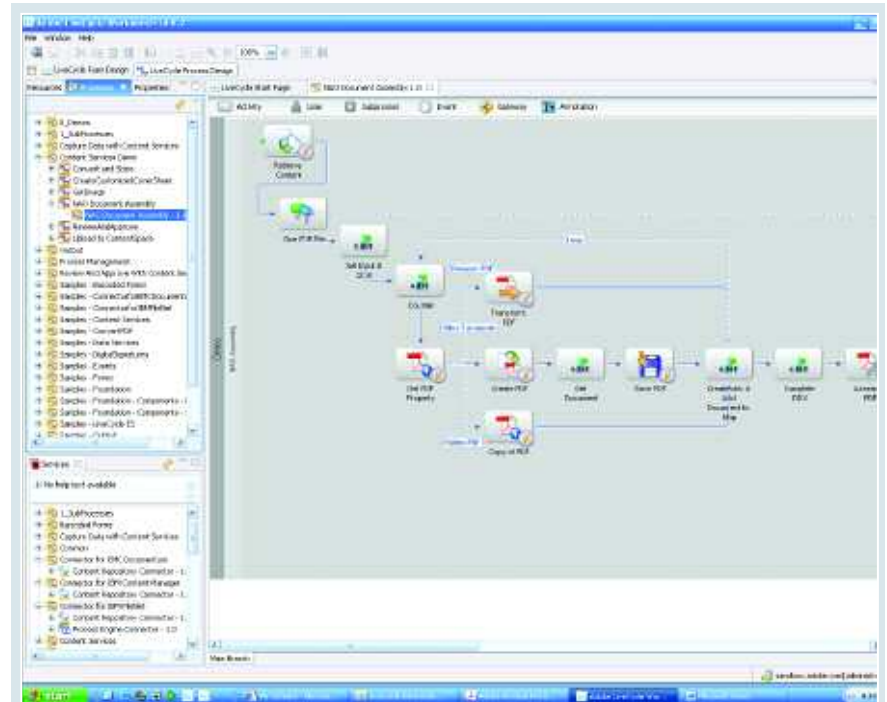
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- Image processing: 200+ filters, transforms and color conversion functions
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Adobe's LiveCycle adds a feature that automates workflow for a document-creation project.

# Adobe enhances LiveCycle rich document and application tools

## Update includes CAD-to-PDF conversion capability

BY ROBERT MULLINS

Adobe Systems has added new features to the LiveCycle Enterprise Suite content management product it introduced a year ago. These features expedite the creation of rich Internet applications and documents.

At the heart of LiveCycle Enterprise Suite (ES) Update 1, announced June 17, is LiveCycle Content Services ES, which includes an enterprise content repository, version management and collaboration tools, and Microsoft Office plug-ins that allow files such as Word documents to be easily integrated into the content management system. The Content Services component sells for US\$25,000 per CPU, or \$125 per user, with a minimum of 100 users, Adobe said.

Content Services is the fruit of a partnership between Adobe and Alfresco Software, a provider of open-source content management software. The Alfresco contribution is compelling, said Guy Creese, vice president and research director at Burton Group.

Alfresco is a relatively new but fast-growing company, Creese noted. It uses open-source software to accelerate its product development cycle. "A lot of their stuff is built on open source, so they haven't had to code a lot of building blocks; they just use them."

Also new in Update 1, which is expected to become available this month, is the ability to convert a CAD drawing into a PDF using LiveCycle PDF Generator 3D ES, explained Brian Wick, Adobe's director of LiveCycle product marketing.

In one example posed by Wick, if a manufacturer wanted to share a CAD drawing of a new product with sales engineers, lawyers or an outside company that would be hired to make that product, those people wouldn't usually have access to a CAD workstation, which is expensive.

"What we're doing with LiveCycle is converting, in batch mode and in high volume, the CAD drawings into PDF... so that those users can review and mark up and approve just with their free Reader client," he said.

The new 3D version of LiveCycle PDF Generator ES lists for \$60,000 per CPU or \$300 per end user, with a minimum of 100 users.

The Content Services component also includes Workbench, an Eclipse-based tool for managing the workflow of a document creation process, said Marc Eaman, Adobe corporate evangelist. He demonstrated how Workbench could create a "welcome document" for a new customer of a financial services firm, bringing together account information, marketing materials and required legal disclosures.

In the example, if one of the documents changed to keep up with New York state law, a new disclosure statement page could be added for all clients in New York, on the fly, according to Eaman.

LiveCycle also incorporates other Adobe products, including Flash for rich Internet applications and Adobe AIR for applications that work offline as well as online. ■



# Rally upgrade fixes bugs earlier in agile process

**BY ROBERT MULLINS**

Rally Software wants developers to use agile development to successfully write software. To that end, the company has unveiled Quality Manager, which shifts quality management testing to earlier in the process.

Privately held Rally unveiled a new release of Quality Manager last month. The company also said that it has received a new round of venture capital.

Quality Manager can identify and correct defects during development, the company said.

“We need to move quality away from the back of the bus, where we integrate it late in the cycle, and start bringing that notion forward into the process,” said Ryan Martens, Rally’s co-founder and CTO.

That objective is at the heart of agile software development, in contrast to the traditional “waterfall” process, he noted, pointing to functions Rally has added to Quality Manager. Those include managing tests across all concurrent projects and schedules, creating test cases directly from software requirements and recording full test histories for monitoring feature or system quality trends.

To improve collaboration and communication, Quality Manager offers dashboards with testing information that can be shared among team members as they try to resolve defects faster.

By waiting until the end to run quality tests on the developed software, the team creates more work for itself, having to backtrack through thousands of lines of code looking for a defect, said Martens.

## DRAINING THE LAKE

Martens compared it to dredging: “You basically have filled up a huge lake full of specs, and at the bottom of that lake is some nasty [defects], but you don’t know how nasty they really are until you’ve drained a lot of the lake.”

Instead, Quality Manager tests for quality at each iteration of agile development, including regression testing to identify the adverse effect that new code may have on code already written, Martens noted.

Rally is a software-as-a-service (SaaS) company, selling access to its applications on a subscription basis. Quality

Manager starts at US\$10 per user per month as an add-on module to Enterprise Edition, its agile life-cycle management platform, which itself starts at \$35 per user per month. Rally

also offers an agile platform called Community Edition that is free for up to 10 users, but Quality Manager cannot be added to Community Edition.

Fueling its plans, Rally also

landed \$16.5 million in Series C funding, led by Mohr Davidow Ventures, as well as additional investments from existing backers Boulder Ventures, Mobius Venture Capital and Vista Ven-

tures. Rally, which is based in Boulder, Colo., plans to use the additional venture capital to expand its sales operations into the high-tech markets of Boston and Silicon Valley. ■

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Academics > Course Schedule

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# Mashup Center eyes non-technical

◀ continued from page 1

filtered and mashed together to create new information sources and output in many forms, such as Atom, RSS or XML. This helps create a single view of disparate sets of information in a highly reusable manner.

According to IBM, feeds are an easy way to service-enable systems that do not natively provide RESTful interfaces. The Mashup Center, like much of the Web, uses RESTful approaches to unleash critical information and services, paving the way for a service-oriented architecture.

## BIG BLUE VALIDATION?

At first, mashups were mainly seen as consumer applications, but IBM hopes its investment in this technology will boost the movement of mashups into enterprises. According to Nicole Carrier, a product manager for IBM, the company's efforts in the industry have, in a way, validated enterprise mashups.

"When IBM gets into a market, people know that there's a lot of potential there," she said.

"We're helping mature the market simply by being a player in it—it signals that we've been researching and investigating this technology and we know it is promising. It's real and relevant to enterprises versus just consumers."

Despite the buzz about enterprise mashups, there is still some confusion about what they are. In a recent report, Forrester Research defined them as "custom applications that combine multiple, disparate data sources into something new and unique." The company currently predicts that by 2013, the enterprise mashup market will reach US\$700 million.

"The term mashup comes from the music industry," explained Carrier. "You take the lyrics from one song and the music from another to create a new song. That notion has now been applied to the software world. We're creating new applications by combining data from the Web with internal information and other applications."

Carrier pointed to a case where Boeing Corp. used Mashup Center to build a mashup that helps the company react to events, such as Hurricane Katrina or other disasters, by pulling data from internal and external sources to figure out what airports are open, what planes can land in those locations and more.

According to Forrester's Oliver Young, enterprise mashups are different from consumer mashups. Consumer mashups are usually created by an individual or company, and they are available to anyone on the Web. For example, one of the earliest mashups combined crime data with map data from Google to show a geographic representation of crime rates.

## THEY START WITH USERS

Enterprise mashups are user-generated, allowing companies to pull and combine information from different systems. According to Young, there are a few different types of enterprise mashups, such as the data

mashup (Twittervision, for example), which combines, manipulates and ties together disparate data sources to present a unified view; the presentation layer mashup, which combines content from disparate sources in a unified view; and the process mashup, which allows users to mash up not only data sources but also business processes themselves, customizing process design and creating business logic across multiple applications.

Carrier said that mashups are increasingly popular with enterprises because of the value they bring to the entire organization. "From a business perspective, mashups allow users to innovate more quickly and to create applications in ad-hoc fashion," she said. "They free up IT's time to work on other things. IT typically has a backlog—they have too many applications to build and not enough resources to build them. Now they can unburden themselves and let others build these applications."

Still, there are many hurdles to overcome before the technology is widely embraced by businesses, especially by IT. For example, security is a major concern when it comes to enterprise mashups, said Carrier.

Because mashups can be built by non-IT staff and combine Web services from all over the Internet, companies are concerned that they could leak important data. To alleviate those concerns, Mashup Center has a mechanism that helps mashups authenticate AJAX Web services. IBM is also working with the OpenAjax Alliance to define standards around mashups and improve interoperability across vendors.

"We're giving IT everything they need in terms of control over which widgets and feeds users have access to," said Carrier. "We've taken every step to make sure they can allow these business users to innovate and self-manage, but only in a controlled fashion."

Forrester projects that the enterprise mashup market will

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hit a tipping point in 2009-2010, and it will become a significant part of the IT landscape by 2013. "As a result," said Young, "we expect traditional collaboration and productivity vendors like IBM and Microsoft to ultimately come to dominate the mashup platform market, rolling mashup platforms into major products, like SharePoint and the Lotus application suite."

Carrier agrees that the enterprise mashup market has lots of room for expansion, but she expects it to be rapidly fueled by young minds in the near future.

"We're seeing this younger generation coming up through the ranks who have essentially grown up on the Web," she said. "They're coming in and widely adopting new technologies, like mashups. They'll be experimenting with the different types of mashups they can create. As this happens, it will be more of a viral effect where people will share what they've done, and more and more people will get hooked." ■

# Storm brews over proposed Java spec



Sun's Coward: Gap in numbering schemes will be bridged by code.

◀ continued from page 1

requires a four-digit versioning scheme, wrote Sun's Stanley Ho, spec co-lead of JSR 277, in his blog posting (tinyurl.com/6xmlvs).

"The OSGi policy of three-number versions . . . simply isn't enough for some programs," Ho wrote. "The JDK uses four numbers . . . You can argue whether this is good practice, but it's the way the JDK is."

One critic, Hal Hildebrand of Oracle and a member of the OSGi Alliance's core platform expert group, accused Ho of "hubris" for foisting a whole new standard on a development community that has embraced the three-digit OSGi scheme. He asked on his blog (tinyurl.com/3mkxov) why Sun feels the "need to invent yet another versioning system."

Hildebrand wrote, "The absolute last thing we need from Sun in the Java Modules is Yet Another Brilliant Sun Shiny Invention that we'll have to suffer through for years."

But the numbering schemes baked into Java Module System and the OSGi module, or "bundle," can co-exist, and that's part of the plan, said Danny Coward, chief architect for client software at Sun, and a member of the JCP executive committee.

"When an application is deployed in JDK 7 that expresses a dependency on a certain OSGi bundle, when the Java Module System with the OSGi support looks around for the OSGi bun-

dle to resolve that, it will make the conversion step between the versioning numbering scheme in the Java Module System and the one in the OSGi bundle," Coward explained. "There will be a little bit of code in JDK 7 that will manage that conversion and bridge that gap between the two schemes."

Critics of the four-digit scheme forget that Java Module System is just a proposal in the early stages, said Coward. JSR 277 is in the early expert draft stage, which will be followed by a second expert draft and, after that, the first public draft.

He said that JSR 277 deliberations are open and that there is ample discussion of the issues among many blogs. "If you want to go and find the conspiracy, go and sign up and follow the discussions in the expert group. That's where the action happens," Coward said.

While unfamiliar with the specifics of the JSR 277 spec, software design consultant Allen Holub said that the controversy reveals a fundamental flaw in the

JCP: Sun often uses the process to push its own standards, rather than develop ones by consensus.

The openness of a JSR to outside influence depends on the attitude of the project leads, Holub argued. JSRs that attract more corporate interest, from Sun or other technology companies, tend to be more closed than ones attracting more academic interest, for example.

"What I would like to see is for technologies to arise spontaneously out of the community that actually solve problems and then for an organization like Sun to say, 'This is great but it has to be standardized,'" said Holub, a part-time lecturer at the University of California, Berkeley, and an SD Times contributor.

The JCP doesn't work as standards bodies usually do, he added. "Instead, we have things being invented by the standards committees, and when a standards committee invents something, the odds of it being useful are smaller than if it was technology that's in use, because it's useful." ■

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# Loyal community following lets FoxPro endure

◀ continued from page 7

showing of its value, some of its technologies have surfaced within today's Microsoft products.

According to Griver, Visual Studio's data tools are rooted in VFP, and in a similar fashion,

LINQ (Language Integrated Query) "owes a debt" to FoxPro by building on some of its remote view data query capabilities. "When you create something new, it is created from an amalgam of what has

come before," he said.

Duffy agreed, saying, "When [Microsoft] first showed us LINQ, it was kind of like, 'Yeah, we've had that in FoxPro for a long time; what's new here?'"

Homnick recalled how Fox-

Pro "grew up on its own," with its users often flying under corporate approvals, and how it was frequently used to create simple line-of-business applications. He added that many of those applications remain in

use, and that IT managers would not dare wrest them from users' hands.

FoxPro was a programming language and database pulled together, added Homnick, one that out-innovated dBase while offering more backward compatibility than its rival.

What's old is often new again. Like dBase, FoxPro was used to create applications departmentally—often without IT's knowledge. Today, service-oriented architectures emphasize service reuse, while enterprise mashups empower business users to create their own governed applications out of services—again, without the blessing of IT.

"The industry goes in circles," Griver remarked. But the circle may be collapsing into a dot.

All three noted that many of their FoxPro compatriots have begun to move on to .NET programming. Microsoft's strategy "has changed dramatically. It makes [VFP] a tough sell," Duffy offered. Consequently, he added, the number of developers skilled enough to support and maintain a FoxPro application is dwindling.

Duffy makes his living providing technical training and is witnessing FoxPro's displacement firsthand, but the flame's not yet extinguished. He lamented that enrollment in ".NET classes [is] up, and FoxPro training classes are down; the headcount has significantly declined over the past few years."

With its devoted community, and with the persistence of other previously pervasive programming languages such as COBOL in mind, it is unlikely that Visual FoxPro will fade off entirely. But its status as a deprecated technology within Microsoft is undeniable. Although FoxPro's spotlight is fading, it still casts a long shadow. ■

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# Developers get direct eBay access

◀ continued from page 1

Selling Manager.

eBay will launch a pilot of Project Echo with a few developers in the fourth quarter, Kandawamy said. A public beta will be released in the first quarter of 2009, with general availability in mid-2009.

Project Echo is good news for application providers such as Hosted Support. The Los Angeles-based company offers monthly subscription services for eBay sellers, including e-mail management and the creation of FAQs to help buyers at their sites. It's been difficult for Hosted Support to reach the disparate community of thousands of eBay sellers, said Jerad Schempp, the chief operating officer of Hosted Support.

"It's like the problems of any company trying to reach [a] small-business market. Where's the watering hole where all these small businesses gather? There really is nothing like that for the eBay community," said Schempp.

Being integrated into the eBay site also would give these third-party applications what amounts to a seal of approval for customers considering a purchase, said Andrew Sukow, CTO

of Terapeak, a provider of service-based research software. "They'll be more comfortable now signing up and using" the software, he added, "because it's integrated into eBay."

In addition, eBay is offering

new APIs for developers creating applications that use eBay data, said Kandawamy. For instance, a developer could access eBay's information about how often a particular buyer purchases something from a seller.

Also at the developers' conference, the PayPal unit of eBay announced a redesign of its Developer Central portal, at which software makers can find ways to create and market applications that use the online

payment system on e-commerce sites. The portal, expected to launch this month, has a marketing library with prepared sales presentations and other tools to help sell PayPal-based applications, a technical library with sample code, online payment training materials and discussion forums. ■

## PROJECT ECHO HIGHLIGHTS

- Applications can be sold through eBay Selling Manager, which currently features only eBay-made tools; there are 700,000 subscribers.
- eBay Developers Program has 70,000 members who have created 12,000 applications.
- Developers Program offers access to the SDK family, which includes XML, SOAP, Java, .NET, JavaScript and Flash/Flex integration capabilities.
- The timeline: Project Echo pilot with selected developers is expected in the fourth quarter, a beta is slated for the first quarter of 2009 and general availability in mid-2009.
- eBay releases APIs to developers and provides access to buyer and seller data to develop applications.

Source: eBay



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# .NET Micro Framework to work with unmanaged code

BY DAVID WORTHINGTON

ORLANDO — Embedded developers who assumed Microsoft would restrict the .NET Micro Framework to managed code are in for a sur-

prise: Version 3.0 will work with native code.

Microsoft offered a sneak peek of 3.0 last month at the TechEd Developers conference. The session outlined the

company's key goals for the framework, which cover device connectivity, direct access to hardware and ease of porting.

The cusp of the release is interoperability with unmanaged

code, said Jonathan Kagle, group program manager for .NET Micro Framework.

Managed code is "admittedly not perfect" for every task, Kagle said in an interview with SD

Times. In response to developer feedback, version 3.0 will let developers call C/C++ assembly code from C# code and create event callbacks from native code.

"It will be easier to interoperate between applications running on a [real-time operating system] and the Microsoft framework," Kagle said. He admitted this wasn't going to be easy: "We are juggling chainsaws—there's a real opportunity to mess things up." He tempered his statement, saying that more than 90% of code will likely remain managed code in C#.

He noted several use cases in which native code may be preferable, especially ones with CPU-intensive processing.

Direct hardware access enables new interfaces such as 1-Wire, a device communications bus system (designed by Dallas Semiconductor), analog and digital converters, and other on-chip peripherals, according to PowerPoint slides from Kagle's TechEd presentation.

Devices developed using the framework can be configured to act as a USB peripheral device. One such application that Kagle described was a human input device for the disabled, using switches and sensors to simulate keystrokes and mouse movements; Windows would treat the device exactly like a keyboard.

Other planned connectivity features for the .NET Micro 3.0 release include WiFi support based on the framework's existing TCP/IP stack, with SSL added to the stack. Microsoft also intends to include hardware and software "fly-by-wire" control that follows the .NET Framework serial object model.

Also, the framework will introduce several uncategorized capabilities, including a touch-screen interface with a UI control model derived from Windows Presentation Foundation.

An updated tool chain designed for Visual Studio 2008 will complement 3.0, offering additional amenities, such as code-generation tools that support the Devices Profile for Web Services and revamped deployment diagnostics and emulation.

The company is targeting this year for release of the Micro Framework update and will be seeking developers to take part in its beta cycle this summer, Kagle said. ■

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# Wind River to unveil scalable hypervisor

BY P.J. CONNOLLY

Embedded systems development is getting to a point where making full use of the multicore processor designs now starting to appear is not only possible, but when combined with the latest developments in virtualization, it's almost a no-brainer.

Taking advantage of that trend, Wind River Systems went to the heart of the matter last month, when it announced a three-fold approach to mixing multicore hardware with virtualization, and a new scalable hypervisor that it expects to make available this year.

The company intends to aim the hypervisor at a broad range of vertical markets that can use virtualized operating platforms, such as consumer devices, industrial applications and networking hardware.

The hypervisor is expected to be ready for early access by August, and it will support multiple operating systems in addition to VxWorks and Wind River Linux. The hypervisor's design, the company noted, borrows heavily from Wind River's experience in developing safety-critical and security-sensitive software for aerospace and defense applications.

## TESTING SERVICE PUTS HARDWARE IN PALM OF DEVELOPERS

BY P.J. CONNOLLY

Giving developers access to limited-release equipment while maintaining security around the design and features can be a tough proposition.

DeviceAnywhere, which makes actual mobile devices available over the Web to developers, recently launched a service aimed at developers who want access to the latest hardware from Palm.

The service, called the Palm Virtual Developer Lab, is available to Palm Developer Network members, who get three free hours of time on such devices as the Centro smartphone and the Treo 755p.

Using DeviceAnywhere's service, users can manipulate a phone exactly as if it were physically present, including button presses, screen taps and any other physical state change. ■

The company's new approach to virtualization was expressed as a three-pillared scheme. First, the company plans to offer multicore software configurations that support both symmetrical and

asymmetrical multiprocessing, as well as virtualization, in what it calls a "flexible set of operating system configurations."

Flexibility in the adoption of multicore designs and virtual-

ized software is vital to helping customers maintain the usefulness of their code in the face of hardware advances, while allowing them to create distinctive devices, noted Wind River

CTO Tomas Evensen.

Wind River Workbench, the company's Eclipse-based development toolkit, forms the second component of the multicore strategy, with the company's commercial-grade Linux and real-time operating systems—VxWorks and Wind River Linux—making up the third. ■



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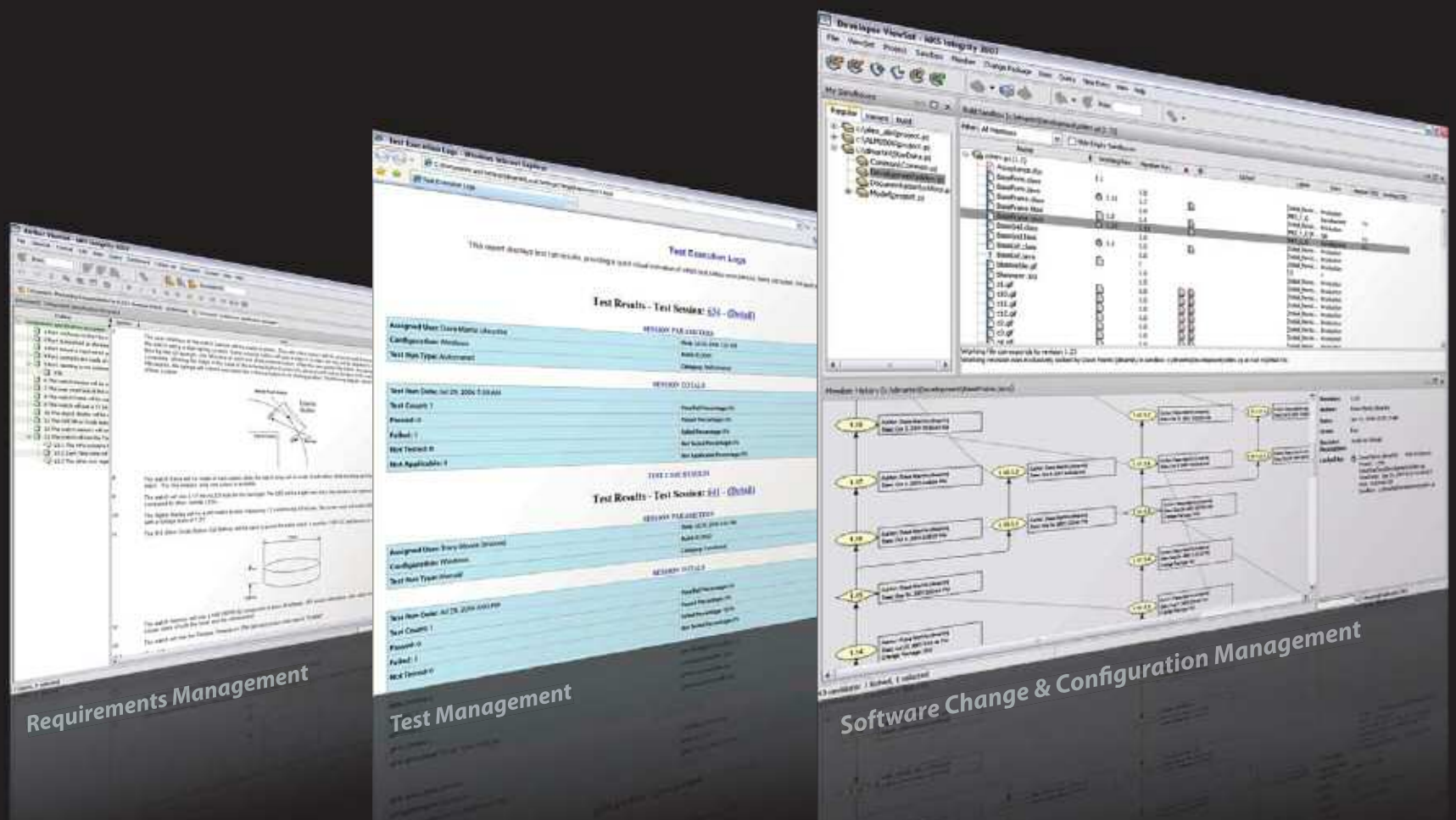
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# Piece by Piece:

## Building the perfect SCM solution

Your best software configuration management system offers integration, coexistence and collaboration

BY JENNIFER DEJONG

**T**oolmakers aren't known for looking beyond their own bottom line. But software configuration management is prompting many of them to put aside their short-term interests. Rather than insisting on being the only fish in the pond, they see strength in diversity.

When asked how best to contend with the complexity of managing multiple

SCM offerings found in most IT shops today, SCM toolmakers are pointing out the value of pragmatic approaches, as opposed to standardizing on one solution. They say that allowing different SCM tools to coexist—and devising an effective strategy to share data among them—permits IT to create a single view of all development projects, without the pain of wholesale migration to a single SCM offering.

“Combining all SCMs isn't always the answer,” said IBM Rational vice president Mike O'Rourke. An alternative, he said, is a “connector strategy,” in which individual development teams stick with their own SCM tool and figure out how to share what

continued on page 34 ►



# Creating the perfect SCM system,

◀ continued from page 33

data, with whom and when.

The challenge of combining systems, or just the data in them, comes as IT shops find they're running more SCM tools than ever. The proliferation is driven not only by mergers and acquisitions, and the emergence of offshore teams in India, but also by open-source projects, which force code committers to use open-source SCM offerings (see box below).

"We live more and more in the world of open-source and commercial offerings," said Corne Human, a product marketing director for Borland. So when it comes to SCM tools, he added, it's best to just "live and let live."

By advocating coexistence, toolmakers are bowing to the reality that SCM consolidation is a hugely complex, often unrealistic, undertaking, said Forrester analyst Jeffrey Hammond.

"The costs of conversion are substantial, and for a large development shop, the migration process can take years," he wrote in an October 2007 report titled, "Standardized Software Change And Configuration Management: Achievable Goal Or Wishful Thinking?"

What's more, SCM consolidation is increasingly seen as a low priority for IT shops focused on the more strategic mission of delivering applications that help the business achieve better results, many toolmakers said.

## LOST IN MIGRATION

One issue that complicates migration is that SCM tools rely heavily on business logic that has been built into them over time, said IBM's O'Rourke. In this case, business logic refers to the rules and procedures unique to each development team, such as, "When you check in code, do this; when you check out code, do that." When migrating from one SCM tool to another, much of that valuable information falls by the wayside. This means losing the "one-to-one mapping of the business logic," O'Rourke noted.

**Consolidating SCM tools is a 'hard, hard problem. There is no cookie-cutter approach, and it can take years and years.'**  
—Mike O'Rourke, IBM Rational vice president

**'You have to ask what the process should be going forward. . . . If you ask three different engineers, you get three different answers.'**  
—Cliff Utstein, AccuRev vice president of marketing and business development

**'Even if you are eliminating the legacy system, don't move its data to the production repository. Set up a legacy repository instead. It's a pack-rat thing to want to take everything.'**  
—Bob Jenkins, CollabNet senior product manager

Another challenge in consolidating configuration management tools is that they are invariably linked to other tools, such as those for requirements, defect tracking and change management. A migration from one SCM offering to another can affect many other systems.

"That creates a degree of complexity that teams must pay attention to," said Microsoft's director of marketing for Visual Studio Team System, Norman Guadagno. They must ask themselves, "How are you tracking and managing the requirements for systems you are merging?"

## A TOUGH PROBLEM

Database compatibility issues also arise during consolidation. For example,

when the Microsoft SCM offering, Team Foundation Server, is merged with IBM Rational SCM tool ClearCase, data must be refactored. The Microsoft offering stores data in the SQL Server database, while the IBM tool relies on DB2, Guadagno explained. "It's a tough problem."

To ease the way, SCM experts offered best practices for maintaining peaceful coexistence, or migrating when necessary. They also have advice on how to share data among SCM tools, painting a picture of the overall state of all development projects. Here's what they said:

**Look for tactical opportunities** to reduce SCM tools, but don't force it, wrote Forrester's Hammond in his

report, "Don't Expect a Straight-Arrow Path Toward SCM Tool Consolidation." To reduce licensing costs, get rid of older SCM tools, added Tom Tyler, a consultant for Perforce Software. Also helpful is combining tools that are used for similar types of projects, said IBM's O'Rourke. "Some SCM offerings are geared to waterfall, others to more iterative development."

**Focus on better visibility, not migration,** said Laura Wingerd, Perforce Software's vice president of product technology. "The goal is visibility and accountability." Wingerd explained that the aim is to create a central, big-picture view of who is working on what, which people are spread across which projects, and what your bug rates are. Accountability, she said, focuses on such factors as who has access to which files and who is responsible for what.

**To create a big-picture view,** pull data from each SCM, said Microsoft's Guadagno. Rather than merge back-end SCM systems, create reports in a third-party tool that combines data from separate SCM systems. Things to measure for management's sake include code completion and bug tracking. Developers themselves are focused on more rudimentary information, such as what's checked in and what's checked out. Create reports in tools such as Microsoft Excel, or through one's change management or project management portfolio, which can automatically collect data.

**Let tools help you coexist.** SCM tools themselves can help ease coexistence, said Forrester's Hammond. Increasingly, toolmakers are letting developers check code into their own tool while also updating other SCM tools used by other teams within the company. That way, said CollabNet senior product manager Bob Jenkins, each team sticks with its tool of choice but "gets visibility into the other code base."

**Fix the process first,** said AccuRev's vice president of marketing and business development, Cliff Utstein. That, he said, is good advice whether you opt for coexistence or a wholesale migration. "You have to ask what the process should be going forward," he said. "What happens when I'm done developing code? Do I share it on an hourly basis with the rest of the team? Who reviews it? Do I run unit tests? Does the build happen when I check in code?"

Achieving consensus on such issues is challenging but crucial. "If you ask three different engineers, you get three different answers," Utstein said. Additional concerns arise as one moves up the chain of command. "How do you ensure the code is reproducible anytime? How are you handling the final release of the code? What is the checklist before release? Is there a security audit, a com-



## WHY DO IT SHOPS HAVE SO MANY SCM TOOLS?

According to Forrester Research, four factors help to answer that question:

**1.** Mainframe and midrange developers are accustomed to different SCM tools. When a shop develops across z/OS, OS/400 and distributed operating systems, such as Unix and Windows, SCM heterogeneity is a fact of life. SCM tools that support all of those platforms exist, but the reality is that the best mainframe tools run only on the mainframe. Even toolmakers that offer hosted and distributed SCM tools, such as CA, IBM and Serena, promote products with different code bases for each platform.

**2.** SCM requirements vary by project size and type of application. Development teams gravitate toward an SCM tool for a variety of reasons—from geographical distribution to style of development to cultural affinity.

**3.** IT inherits SCM tools through acquisitions. Companies that make multiple acquisitions inevitably end up with pockets of competing SCM tools. In the post-purchase phases, integrating key business applications always takes precedence over consolidating SCM efforts. After all, if a development team is productive with its existing SCM tool, why risk throwing a wrench into the gears of a well-oiled machine?

**4.** Open-source projects use open-source SCM tools. Developers who commit code are required to use open-source SCM offerings, such as CVS and Subversion. It's not an issue for those merely consuming code, but if they want to contribute to a project, they definitely will use open-source tools. ■

Source: Adapted from "Standardized Software Change And Configuration Management: Achievable Goal Or Wishful Thinking?" by Jeffrey S. Hammond. Forrester Research, October 2007.



# piece by painstaking piece

pliance audit?" asked Utstein. All the process work must happen up front, said Serena senior director of product marketing Nathan Rawlins, adding, "The tooling is second."

**Make the move.** If you opt for migration, import data from one system to another knowing that you will forgo some of the business logic, said IBM's O'Rourke. "It's disruptive, but most tools have an export or import mechanism, so you get as much of the code and the history as you can." Keep the older system around, in case something comes up in older code. "But for new stuff, you are on one system."

**When you merge, maintain mirrored systems,** said Microsoft's Guadagno. This is a reality for perhaps one release cycle, he said. "That way, you can drop back to one system if anything goes wrong." And something probably will, he added. "Merging [SCM tools] is a software engineering challenge, largely because of the different ways information has been kept. You have to find the common language, get some perspective on what you have pulled in and figure out the new structure for your code."

**Make a clean start.** Sometimes it's better to forgo merging altogether. Instead, take the current state of a project and start in a new tool, maintaining earlier project status in the legacy offering, said MKS product manager Colin Doyle. "Obviously, this approach is not acceptable if you want history." But it's often a workable alternative to reconciling the different ways that SCMs define terms and concepts, he said. For instance, one tool might define a project as a container and associated subcontainers. But another tool might use an entirely different concept for a project.

**When migrating, don't move everything,** said CollabNet's Jenkins. "The gut reaction is to 'migrate everything.'" A better approach would be to keep current the legacy system data pertaining to projects that are longer, he said.

"Even if you are eliminating the legacy system, don't move its data to the production repository. Set up a legacy repository instead. It's a pack-rat thing to

want to take everything."

**Too much information is stifling,** added Perforce's Wingerd. "A lot of naive managers will take that approach at first, but then they learn to

focus." She recommended retaining all assets related to the release of current projects: configuration files, source code, builds.

**Don't underestimate the**

**scope of the challenge.** Consolidating SCM tools—or merely pulling data from them to create a unified view of all projects—is a "hard, hard problem," said IBM's O'Rourke.

"There is no cookie-cutter approach, and it can take years and years." The goal is to make management comfortable with what's going on in development, added Microsoft's Guadagno. "Ultimately [SCM consolidation] isn't really an engineering problem; it's an organizational problem." ■

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## FROM THE EDITORS

## Business as usual at the JCP

Ever since Sun formed the Java Community Process in 1998, other companies have complained that the Silicon Valley company excessively controls Java Specification Requests. Indeed, SD Times has covered many instances in which other companies have urged Sun to play nice and to run the JCP more democratically.

However, there's no reason for Sun to do so. Java, after all, is Sun's technology and a core part of its business strategy. Maintaining control over Java's present and future is essential to Sun's market position. The JCP is Sun's sandbox. Other companies can join the JCP or they can create technologies that work with Java, but they do so on Sun's terms.

Sun with Java is no different than Microsoft with .NET or Apple with the iPhone. That most, if not all, JCP staff are Sun employees should make it very clear: It's Sun's baby, it's Sun's vision and it's Sun's direction.

Take the latest outbreak, the proposed JSR 277 Java Module System, which seeks to extend the existing Java Archive systems with a better packing scheme for applications and resources. Critics contend that there's a perfectly good modular-deployment system already available from the OSGi Alliance and that Sun is going out of its way to ensure that JSR 277 is incompatible with OSGi.

Is that what Sun's up to? It's hard to know whether JSR 277 and OSGi will ultimately be incompatible. We're not sure if JSR 277's scheme is better or worse than OSGi—it's too soon to tell. As for its motivation, the company claims that the development of JSR 277 will be transparent and that Sun will consider feedback from the outside world.

What's going to happen with JSR 277? We don't know. The specification is very raw and immature. However, we support Sun's right to develop specifications in the way that it sees best, even if other companies in the Java industry disapprove. It's Sun's baby, folks. Not yours.

Make no mistake: The Java Community Process isn't a community. That was never its intent, not today, not a decade ago. The JCP is a tool that Sun uses to tap into partners' development resources and ideas. In return, those partners get to be on the inside and have some influence that might help their own vested interests. Decisions about what to put in Java ultimately lie with Sun. Let's hope the company decides wisely.

## Free apps won't help the iPhone

Although it's true that Steve Jobs has positioned iPhone to become synonymous with "mobile application deployment platform," we're not sure it's all that much—yet. The first clue came during his keynote at Apple's Worldwide Developer Conference in June, when Jobs announced that roughly three out of four applications that would be available at the App Store's July launch would be free, as in beer.

This says to us that although developers are interested in the iPhone as a platform, they do not expect it to make any money for them. We rather suspect that this first wave of native software is a lot like the collection of widgets for the Mac OS X Dashboard: an interesting display of programming talent that will become increasingly less useful with every update to the underlying operating system.

It's clear Apple will spend a lot of money on the App Store's infrastructure, since the company won't be collecting dime one from three out of four developers for hosting and provisioning. Granted, that's also a lot of money that won't be spent to support charging credit cards at US\$3.95 a pop, or some similarly low price that does little to offset the actual cost of sales.

Of course, only time will tell how this plays out. But we have to wonder if Apple is setting the stage for world domination, or just building another library of ho-hum freeware. What we're waiting for are the enterprise-class applications, not for a bunch of free widgets, games and utilities. Then, and only then, will the iPhone become a real platform. ■

## Java tool market disintegrating

Even as the Java platform enjoys record popularity because of such new languages as JRuby, Groovy, Scala and the coming JavaFX, the language appears to be declining. The most common measure of language popularity, the Tiobe Programming Community Index (see [tinyurl.com/3xutoh](http://tinyurl.com/3xutoh)), shows that Java holds slightly more than a 20% share. In 2001, that number was just short of 26%.

Except for a brief statistical anomaly, the trend has been consistently downward during the intervening years. (For the purpose of painting a complete picture, I should point out that at the current levels, Java is still ensconced in first place. C, perpetually in second place, is at 15%. Then come Visual Basic, PHP and C++, which are all in the 10% to 11% range—and the only languages with shares in double digits.)

Java's success as a technology, running the gamut from handheld devices to enterprise servers, created two markets: Infrastructure did reasonably well but development tools did not. Typically, infrastructure does have more economic success because enterprises must commit in a big way to their infrastructure, so they are willing to spend to ensure a no-failure solution.

For that reason, enterprise Java vendors, such as BEA, IBM's WebSphere division and JBoss/Red Hat, have fared well. For reasons difficult to understand, Sun has always done poorly in that area, despite having decent offerings and being an established enterprise vendor.

The market for lesser Java infrastructure has been much smaller. Most of the many JMS vendors have been absorbed by larger companies or are limping along. The same goes for portal vendors, Java SOA tool companies and the like.

But as small as that add-on market has been, it does not compare with the Java tools market, which has been unhealthy for years. It is hard to think of a single Java-only tools company that has grown and prospered. One exception is KLGroop, which later became Sitarka and sold for a small fortune to Quest Software during the Internet bubble. Beyond it, though, things drop off quickly. Small companies struggle, living out their bets on Java.

Recently, three events, all negative, occurred in this Java market. Borland's CodeGear division, whose flagship product is JBuilder, the Eclipse-based IDE, was finally sold off (to Embarcadero) for US\$23 million. That price is a pittance, and yet it took Borland years to sell off this set of tools, suggesting

few takers even at favorable pricing. Then, Agitar, the well-regarded vendor of unit-testing software for Java, closed its doors. SD Times got the story from Jerry Rudisin, Agitar CEO, in an exclusive interview.

Rudisin pointed out that the unit-testing market never grew to the size Agitar had expected and needed. Since

## Integration Watch



Agitar sold only Java tools, the key refinement to his analysis is that it was the Java testing marketplace that never grew to the necessary size.

Finally, Enerjy, which has tried repeatedly to be a Java tools vendor, announced in late May that its sole product would be available free. Originally, Enerjy had a series of solid tools. Then the company focused on metrics dashboards. Finally, after a prolonged analysis of software engineering, Enerjy developed an Eclipse plug-in to use metrics to assess the health of projects, particularly ones related to Java.

Certainly, one can say that Borland, Agitar and Enerjy blew their chances themselves. But the fact that all three did so during a period in which no tool vendor scored a big success suggests that the weak market clearly had a hand in it.

## TOO EASY TO BLAME FOSS

To the untrained eye, open source might be to blame, particularly because Java developers more than any others benefit from a range of high-quality FOSS (free and open-source software) tools. But while part of it can be pinned on FOSS, blaming it entirely would be lazy analysis.

In fact, the software tools segment has always been a difficult market in which to grow, regardless of language. Consider that in .NET, with its panoply of supported languages and far fewer open-source software tools, the biggest vendors are component designers—a market of tiny businesses. So, when you add that factor to the dwindling use of Java, good companies will start to bail out.

The only winners in development tools are the few vendors that are language-agnostic and that have integrated suites oriented toward enterprise life-cycle development. Rational, Serena Software, Telelogic and perhaps what remains of Borland are on this short list. Except for them, life will be hard for tool vendors, and failure will be likely regardless of the quality of their offerings. ■

Andrew Binstock is the principal analyst at Pacific Data Works. Read his blog at [binstock.blogspot.com](http://binstock.blogspot.com).



## LETTERS TO THE EDITOR

## Testing in Scrum

I have read several articles in Software Test & Performance (an SD Times sister publication) about testing in Scrum or other agile software development approaches, and every one of them gives the misimpression that agile software has no documentation of the requirements. Therefore, the testers must test for what the developers say the software should do, which is a moving target.

This misconception would, of course, lead to chaos and lots of rework. The way to make testers effective in agile software development is simple:

1. When the developers "negotiate" the requirements for the upcoming iteration with the customers, the testers must be full participants in those conversations. This includes asking clarifying questions and noting where requirements are untestable.

2. The testers immediately translate the requirements that are agreed upon in those conversations into test cases. Those cases serve as the requirements documentation for the upcoming iteration. As soon as possible, the testers and developers collaborate in automating those cases.

3. When requirements change, testers are immediately involved because everyone knows that the test cases must be changed accordingly.

Note that having BAs document the requirements in ambiguous text and then testers translating them into test cases (usually after the software has already been developed) is wasteful and leads to arguments about different interpretations of the textual requirements.

Going straight to unambiguous test cases avoids the extra step and finger-pointing. Proactive participation by testers resolves the problems:

- Communication is three-way, not one-way.

- Requirements are documented as test cases (and everyone now knows what the software delivered by the end of the iteration is supposed to deliver).
- Testers are first-class team members contributing throughout the process, not second-class members playing catch-up at the back end).

Instead of complaining, be proactive and get involved in the entire software development process flow.

**Steven Gordon**

Independent Software Developer  
and Agile Coach  
Phoenix

## HIS PICK FOR AN OS IS CLEAR

I read your article about virtualization ("Virtualization 3.0," May 15, page 25, or [tinyurl.com/5j4dnc](http://tinyurl.com/5j4dnc)) with some amusement. I am an old Pick database programmer, and Pick has done virtualization since the 1970s.

The Pick OS will load and run on just about any platform, including Microsoft's. It uses built-in tools to create one of the easiest-to-use and most versatile 3D relational database models on the market. Yet, it never merits mention in any of the "mainstream" media periodicals.

Just about every buzzword and acronym you guys punch out every month, Pick has been doing since bell-bottoms and afro hairdos were in style. All the techno-weenies out there owe a great deal of what's happening in their careers to this venerable OS, yet I'll bet less than 5% have ever heard of it.

Had Dick Pick not passed away in the mid-1990s, things might have been different today. But wherever you find a Pickie out there, they'll tell you that they wouldn't trade their "legacy system" for all the whiz-bang buzzword-laden toys

in the world. So how about a nod to the good old days once in awhile?

**Gary Lass**

Wilsonville, Ore.

## EXODUS OF ENGINEERS?

Regarding Zeichick's Take: "What's Microsoft up to, withdrawing its Yahoo bid?" (see [tinyurl.com/5lbbtv](http://tinyurl.com/5lbbtv)), my feeling is that the engineers at Yahoo want nothing to do with Microsoft. If Yahoo does get acquired and the engineers go someplace else, what exactly are they buying?

**Bruce Garlock**

## JBUILDER TAKES A NEW TURN

Funny, it looks like seven years after I predicted to Borland engineers that JBuilder would be running Eclipse, they finally killed it ("Embarcadero picks up CodeGear assets," see [tinyurl.com/5bkd7k](http://tinyurl.com/5bkd7k)).

Maybe as a brand stronger than all the stuff Borland still has (Together seems like the only useful exception), it is likely to remain by this name.

Embarcadero already had some form of "Studio." But I remember that it was ultracomplex and unable to create a simple use-case diagram without setting up a full Oracle database as its repository.

Indeed, they've been very DB-friendly. And now, with Eclipse, they seem to have a decent EER/DBA tool under their belt. Combined with JBuilder, I am sure a new "Studio" of theirs could become another strong competitor with DevSuites under Eclipse. If they still sell a UML tool, then they're rather a Borland killer! If not, that could be a reason for the deal and collaboration (Together).

**Werner Keil**

Creative Arts & Technologies

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## Double-digit growth seen in application infrastructure and middleware

## DATA WATCH

## Rivals take AIM at leader IBM

The worldwide market for application infrastructure and middleware (AIM) grew by 13% last year, fueled by strong performance in business process management and enterprise service buses, according to figures from Gartner.

The sector's resilience can be attributed to the evolution and growth of the underlying technology and to the demand for service-oriented architectures and process-centered applications, Gartner said. Moreover, broader business trends, such as globalization and internationalization, are boosting AIM sales. Gartner research director Fabrizio Biscotti said that there are no "noticeable signs of slowdown."

Further details are available in the Gartner report titled, "Market Share: Application Infrastructure and Middleware Software, Worldwide, 2007." ■







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**SD Times** SOFTWARE DEVELOPMENT  
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# Parting gifts from Bill Gates

**T**he success of Microsoft is really due to our relationship with developers." So said Bill Gates at TechEd 2008 Developers.

The speech was Gates' last as a full-time board member of Microsoft. While Gates will be trotted out on special occasions, this would be his last time cradling the remote mouse in his unique manner and gamely clunking through scripted banter with a series of other presenters.

In this case, the theme of the "spontaneous" questions was, "Gee, weren't PCs really small when you started Microsoft?" This was tied by a thin strand to the substance of the talk, which was a straightforward presentation of development, divided into "three-tiers plus services."

The presentation tier was represented by Silverlight 2, which went into Beta 2 (with a Go Live license) at TechEd. Silverlight is Microsoft's Flash killer, and while its initial release gained little traction, the new version is impressive, with excellent media capabilities (including low-bit-rate video that, to my eye, outdoes the competition).

Most appealing to developers, though, is that Silverlight 2 is the main vehicle for the Dynamic Language Runtime, the component that lets languages such as Python and Ruby be used seamlessly with

the .NET Framework. (At RailsConf days earlier, Microsoft's John Lam demonstrated that IronRuby had passed the milestone of running at least simple requests against an unmodified copy of Rails.)

The business-logic tier was represented by a presentation on components of Oslo, Microsoft's unified modeling framework. Technical Fellow Brian Harry said Microsoft intended to provide a CTP of Oslo at the Professional Developers Conference in October.

In the meantime, he demonstrated how to validate an architecture. In one Smalltalk browser-like view, he showed the classes and components of an application. "Noticing" a dependency between a client-side element and one on the server, Harry switched to an Architecture Layer Diagram, in which the intended architecture was diagrammed. A right-click context menu provided a Validate option, which diagnosed the dependency issue in Visual Studio's familiar Errors and Warnings list. The demo reminded me that Visual Studio Team System has shipped nice quality-review power tools.

It's tempting for developers to reduce their thinking about the data tier to "draw

an entity-relationship diagram, don't embed your password in your connection string, and hire a DBA to do the rest." But Dave Campbell's SQL Server 2008 demo made me want to upgrade as soon as I could. First, he demonstrated the new SPATIAL data type, which allows for geotagging and distance calculations with none of that pesky trigonometry (a function that actually calculated road times as opposed to crow's flights would be even more helpful. Are you listening, Popfly programmers?)

As common as geotagging has become, a bigger problem for developers has been consolidating RESTful architecture with decades of relational database infrastructure, momentum and data. SS08 Data Services provide a RESTful view of relational data.

For those working with XML and service-oriented systems, there could hardly be better news. I would pay the upgrade cost for SS08 out of my own pocket to get that. Yet, I wonder how the news would be received by the developer who recently told me, "File systems don't scale as well as relational databases."

The "plus services" part of the vision was not demonstrated per se, but Gates

had a slide or two showing that any of these functions might be provided "for free." He added, "Some will be ad-supported and a number (the ones that provide rich guarantees) will be provided on a commercial basis."

The talk began with the exceptionally well-done "Last Workday of Bill Gates" video (the "director's cut," now including John McCain and, inexplicably, lots more Matthew McConaughey) and Gates talking up alternate input methods, including tablet, multi-touch, speech and vision.

Robots excite the imagination in the way that PCs did in the mid-1970s, and the last guests that Gates brought on stage were Tandy Trower, who heads the Robotics Studio project, and Patrick Deegan, an endearingly tongue-tied Ph.D candidate from UMass Amherst, whose uBot balances on two wheels while rotating its torso and swinging its arms. The uBot, which was rebranded the Ballmerbot for the purpose of the demo, delivered a cute little "Developers! Developers! Developers!" rant.

Gates summed up the talk's key points and then said, "Microsoft has always been very committed to developers. It's always been the center of the company, and always will be." ■

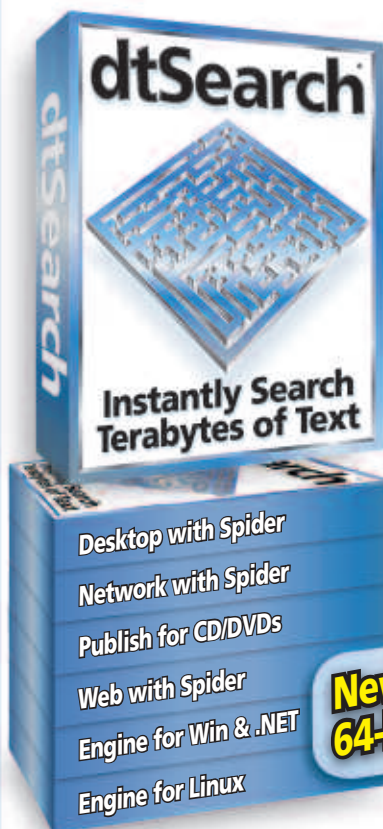
*Larry O'Brien is a technology consultant, analyst and writer. Read his blog at [www.knowing.net](http://www.knowing.net).*

## Windows & .NET Watch



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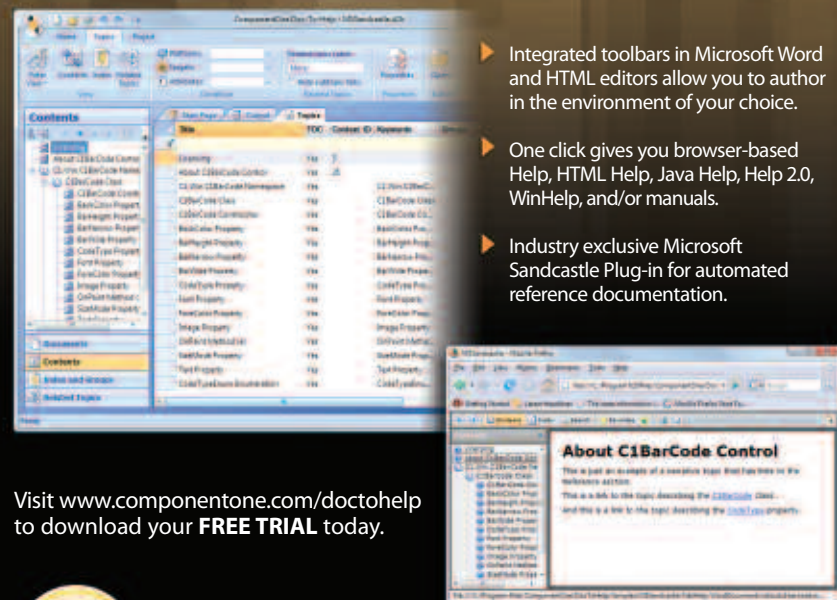
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# SOA guys don't embrace developers

I've heard from a few developers that many SOA guys don't like to get input from developers. I'm not sure why that is, since architecture and development go hand in hand, but I've heard this lesson more than a few times and would like to address it.

What's clear about SOA is that it emerged from the world of software development. Indeed, any developer worth his or her salt has understood the value of leveraging reusable services and perhaps has created software using that approach. This bubbled up to the layer of architecture, and traditional enterprise architects understood the value of addressing many distributed systems as services and, thus, the ability to configure processes and composites on top of those services. This leads to agility, which is—or should be—the core objective of architecture.

So, one could consider SOA a blending of traditional enterprise architecture and software development. However, for some reason developers are not getting the credit, and in many instances they are not welcome in the world of SOA by those who guard the door. This is a huge mistake. As a developer who has become an architect, and now a thought leader, I can tell you that it pays to understand all aspects of architecture,

from development to governance.

The core issues around this topic concern politics more than technology. Many of those charged with managing enterprise architectures don't put much stock in those charged with actually building the systems. In essence, it would be similar to architects who design an office building but have little communication with those who actually do the construction.

In the world of architecture, developers often drive innovation more so than the architects, and the holistic understanding of the entire enterprise is pretty easy to figure out in contrast to the orderly tracking and arrangement of services to form solutions. Thus, in many instances, enterprise architects don't really have a clue. Instead they fall back on creating presentations and governance policies that do nothing to solve the complexity and rigidity crisis systemic to most enterprise architectures.

Central to the chasm forming between developers and SOA architects is that there can really be no core benefit that's understood if this communication problem isn't solved. Architects would not have a clear understanding of the core

issues around building and deploying services, and developers wouldn't have a chance to understand holistically the core issues within the enterprise, not to mention the business issues. That's not good.

In the past, when I served as CTO, I made it my mission to understand just what the developers were doing and what they were thinking. Truth be told, some of my better ideas began as conversations with C++ and Java coders, and that is where much of the innovation lies today. You just have to listen.

Architects are too caught up in the management aspect of their jobs, and they are not paying enough attention to how their jobs would change as a result of these new approaches and technologies. Moreover, architects are in denial about the fact that many of the core architectural concepts bubble up from the bottom and are not defined by any architectural concepts or approaches. Can you say mashups?

So, what's an architect to do? First, include developers in the group of people who assist you in driving the architecture. That means that at times you'll have to admit that they have a good idea

and leverage it. Second, get off your high horse and stop thinking like a manager or an executive, but rather like an enterprise architect. This means doing rather than presenting, and it means driving a systemic change to the enterprise architecture that will benefit the company long term. If you can't do those things, go find other work; you're not helping.

So, what's a developer to do? First, understand the concept of architecture and how it relates to development. Many developers miss that, and some do so on purpose. Truth be told, you show me a good developer and I'll show you a good architect. Second, drive up the chain when you have issues and concepts that need addressing. Many developers are passive and don't like to rock the boat. Remember to be diplomatic and consider the culture of the enterprise. In this case, it's about the people, not the technology.

There are many architects who do think holistically and innovatively and, indeed, drive change consistently. However, they are scarce. The larger issues are aimed at those who just manage by magazine (or should I say manage by blogs?) and follow what seems to be popular, as opposed to what is correct for their architecture. That won't get you to an agile architecture. And, at the end of the day, you're just making things worse. ■

Reach analyst David S. Linthicum at [david@linthicumgroup.com](mailto:david@linthicumgroup.com).

## SOA Watch



David S. Linthicum

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## SHORT TAKES

**WHAT WILL YOU DO** when gasoline hits US\$17 per gallon? That's what drivers in the United Kingdom have been facing.

According to a story in the Daily Mail, the combination of high oil prices, high taxes and a mid-June strike by fuel-lorry drivers caused some petrol stations to raise the liter price as high as £1.99, which is in the neighborhood of \$17 a gallon. Even at that price, some stations had run out by the strike's third day, June 16. Ouch.

Think about that when you complain about filling your tank for \$4.39 per gallon, which is what our neighborhood gas station is charging this week. Imagine if 15 gallons of mid-grade set you back \$255 instead of \$66. I'm so glad that I drive a little Mazda instead of a massive sport utility vehicle!

So, what do you do? People are already starting to travel less. Drivers are increasingly adopting public transport, according to news reports. They're also turning to collaborative technologies.

Telephone conference calls are pretty inexpensive. Face-to-face video conferencing, whether it's over iChat AV or Skype, is free. Whiteboarding systems, wikis and SharePoint can bring your team closer together. Groupware features within your favorite IDE or application lifecycle management suite are more important than ever. Make sure that your software development tools have them—

— Alan Zeichick



**SAP PUT A** different twist on the software development competitions that many companies host, by including customers and partners along with SAP's own coders.

Thirty SAP developers plus 14 developers from partner firms such as Accenture, and customers such as Colgate-Palmolive, broke into seven teams and, according to one participant, lived mostly on brownies and Red Bull while coding 'round the clock one weekend.

"We know that innovation can come from different places," said Rami Brantitzky, managing director of SAP Labs North America and the Ryan Seacrest-like host of the Demo Jam held June 9, in which each application was demonstrated before a panel of judges in "American Idol" style.

The software had to incorporate any or all of three concepts: green technology, mobility and social networking.

The winner was Project Green Drive for a coordinated carpooling application. Users on a mobile device or a PC browser can form a carpool or ask to join someone else's. The application links with Facebook, allowing users to choose from among their friends to join a carpool, then mapping out the route the driver takes to pick up each passenger.

"[Someone] said this is something we should quit our jobs over and go to market. You never know," quipped Brian Bischoff, lead developer on Project Green Drive.

Actually, SAP retains ownership of the applications developed during the competition, observed spokeswoman Lindsey Held.

— Robert Mullins



**THE HOT NEWS** out of Apple's Worldwide Developer Conference in early June might have been about the iPhone, but the references to Mac OS X Snow Leopard, the operating system's 10.6 release, surprised some in the press section.

With about a year to go before release, nobody at Apple wants to say much officially about Snow Leopard, except that it will focus on stability. I'm OK with that; I'm even OK with dropping support for PowerPC-based Macs, albeit that orphans the machine with which I do most of my thinking and writing. (I've had more problems with the current version's networking than with its application support.)

This move should be a can of corn, since the Mac is on its third processor architecture; the transition has become old hat. Even though I haven't seen anything come out this century that works radically better for me than stuff I was using 10 years ago, I'm looking for an excuse to make changes. After all, applications are not Scotch; when they're 10 years old, they lose their allure.

— P.J. Connolly

**YAHOO CEO JERRY YANG** has neglected his fiduciary duties, leaving Yahoo shareholders with nothing but stock and promises. Yang's acute case of founder's pride has blinded him to the reality that there's almost nothing he could do to generate as much shareholders' equity as Microsoft's best offer would have.

The company must reinvent itself, and difficult decisions lie ahead. The Yahoo we know will not exist in the near future; it will consolidate products and cut staff. I wonder what Carl Icahn has to say about that.



— David Worthington

## BUSINESS BRIEFS

Enterprise software applications provider **CDC Software** signed a definitive agreement to acquire **Dynamic Business Consultants**, a software systems integrator based in Melbourne, Australia. CDC executives said that the acquisition will expand its reach in Australia and complement the company's process manufacturing focus. DBC is a Microsoft partner that specializes in enterprise resource systems and manufacturing resource planning . . . Paris-based product lifecycle management (PLM) provider **Dassault Systemes** plans to acquire **Engineous Software**, a U.S.-based company that specializes in process integration and design optimization. The acquisition is valued at US\$40 million. Dassault Systemes executives claimed the combination of its V6 PLM platform and Engineous' technology will offer unmatched management of simulation applications and data . . . Mobile device startup **Yap** secured US\$6.5 million in Series A funding, which was put together by **SunBridge Partners**, **Harbert Venture Partners**, **Pittco Capital Partners** and individual investors. Executives of Yap said it will use the capital to expand its business and grow research initiatives. Yap created a platform that lets users dictate text messages to mobile devices . . . Search analytics product provider **Enquisite** said it secured US\$3.2 million in Series A funding. Jeff

Webber, managing director of the **Entrepreneurs Fund III**, an early-stage venture fund, provided the investment. The Entrepreneurs Fund III focuses on Web 2.0 software startups. Enquisite executives said the funding will be used mainly to build sales and marketing offices and to form strategic partnerships with digital agencies.

**EARNINGS: MKS** announced revenue of US\$61.2 million for the fiscal year ended April 30, a 27% increase from \$48.3 million in fiscal 2007. Net income was \$3.8 million in fiscal 2008, up 36% from \$2.8 million in the prior fiscal year. Revenue in the fourth quarter of fiscal 2008 was \$21.2 million, a 68% jump from \$12.6 million in the year-ago quarter . . . **Adobe** reported second-quarter net income of US\$214.9 million, a 41% increase from \$152.5 million in the year-earlier quarter. The company's revenue rose to \$886.9 million from \$745.6 million. For the third quarter, Adobe predicted revenue of between \$855 million and \$885 million . . . Enterprise hosting and applications company **NaviSite** announced revenue of US\$39.3 million for the third quarter of fiscal 2008, a 20% jump from \$32.7 million in the same period a year ago. Income from operations in the quarter increased to \$2 million from \$1.1 million in the same quarter a year earlier. ■

## EVENTS CALENDAR

<b>Software Industry Conference</b>	July 17-19
Boston SHAREWARE INDUSTRY AWARDS FOUNDATION www.sic.org	
<b>Dr. Dobbs Architecture &amp; Design World</b>	July 21-24
Chicago THINKSERVICES drdobbsarchworld.com	
<b>Open Source Convention</b>	July 21-25
Portland, Oregon O'REILLY MEDIA www.conferences.oreilly.com/oscon	
<b>Entity Data Management</b>	July 22-23
New York FIMA www.wbresearch.com/fimaedm	
<b>Black Hat USA</b>	August 2-7
Las Vegas TECHWEB www.blackhat.com	
<b>LinuxWorld Conference &amp; Expo</b>	August 4-7
San Francisco IDG WORLD EXPO www.linuxworldexpo.com	
<b>Agile 2008</b>	August 4-8
Toronto AGILE ALLIANCE agile2008.org	
<b>ESRI International User Conference</b>	August 4-8
San Diego ESRI www.esri.com/events/uc	
<b>SHARE 2008</b>	August 10-15
San Jose SHARE www.share.org	
<b>ACM SIGGRAPH</b>	August 11-15
Los Angeles ACM SIGGRAPH www.siggraph.org/events/s2008	
<b>Intel Developer Forum</b>	August 19-21
San Francisco INTEL www.intel.com/idf/index.htm	
<b>Business of Software 2008</b>	September 3-4
Boston RED GATE SOFTWARE www.businessofsoftware.org	
<b>VS Live New York</b>	September 7-10
New York 1105 MEDIA vslive.com/newyork	
<b>Software Test &amp; Performance Conference</b>	September 24-26
Boston BZ MEDIA www.stpcon.com	
<b>EclipseWorld 2008</b>	October 28-30
Reston, Va. BZ MEDIA www.eclipseworld.net	

For a more complete calendar of U.S. software development events, see [www.bzmedia.com/calendar](http://www.bzmedia.com/calendar). Information is subject to change. Send news about upcoming events to [events@bzmedia.com](mailto:events@bzmedia.com).



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